UNIVERSAL CATALOG 2018D

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universal radio inc.

Serving the radio community since 1942

Universal Radio, Inc.
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Search

Special Notices

- QRI - *Quick Radio Index*
- Radio Archive
- Featured Used Item: Drake R8B
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Popular Catalog Sections		New Items	
	Tabletop Shortwaves Updated 10/02/12 Portable Shortwaves Updated 10/16/12		QJE PS30SWV Power Supply Updated 11/07/12
	Wideband Receivers Updated 10/19/12 Scanner Receivers Updated 11/09/12		Baofeng UV-5RA VHF/UHF HT Updated 11/02/12
	Amateur Base Transceivers Updated 10/19/12		Yaesu FTDX3000 HF/6m Transceiver Updated 10/09/12
	Amateur Mobiles Updated 10/23/12 Amateur Handhelds Updated 11/02/12		Sangean WFR-28 WiFi/FM Radio Updated 10/03/12

Recently Updated Features		Used Equipment	
Special Offers	Updated 11/01/12	Complete Used List	Updated 11/10/12
Top-100 Price List (PDF)	Updated 11/09/12	Select Photos Sold Index	Updated 11/07/12

New Cat Photos	New Publications
Customer Cats: Welcome Squeaker & Butterbean	Care and Feeding of Transmission Lines
Store Cats: Welcome Halloween cats	Grundig Satellit - All Models
Employee Cats: Welcome Whittle	Amateur Radio Public Service Handbook

If you have an order or inquiry that requires immediate action please call 1 800 431-3939.

Telephone Hours: Monday-Friday 9:30 AM to 5:30 PM, Saturday 9:30 AM to 3 PM Eastern Time.
Showroom Hours: Monday-Friday 10 AM to 5:30 PM, Saturday 10 AM to 3 PM Eastern Time.

You may reach this site by typing www.RFfun.com *or* www.universal-radio.com
E-mail Universal at: dx@universal-radio.com View Privacy Statement

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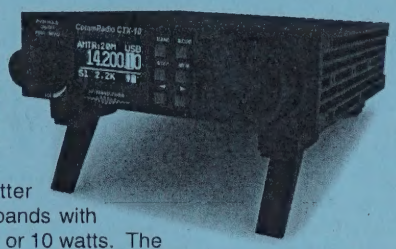
- **On-line Catalog:**
  View detailed product descriptions, color photographs, specifications and accessories. Secure on-line ordering insures your privacy.
- **Used Equipment:**
  Shortwave, scanner and amateur radio equipment at substantial savings.
- **Special Offers:**
  Become instantly informed of coupons, rebates and other special offers.
- **Order Tracking:**
  Check the status and location of your shipment from Universal.
- **Radio Links:**
  Quickly link to manufacturers and or our educational website www.DXing.com
- **Other Features:** Map & Tour, Staff Profiles, Cool Cats and other neat stuff!

All this and more at: www.universal-radio.com

CommRadio CTX-10 *New!*



The **CommRadio CTX-10** blends high performance, internal SDR technology, high efficiency circuit design, compact size and simple operation. This multi-mission QRP radio is ideal for field use and emergency operations. Transmitter covers 80-10 meter amateur bands with output power selectable at 1, 5 or 10 watts. The new design uses ruggedized land mobile power amps in push-pull. Every aspect of the radio design is optimized for low power consumption. The efficient and sharp OLED display is readable in low or high lighting conditions. The radio has *three* built-in #18650 3.7V 2600 mAh Li-ion batteries providing 28.8 watt-hours of operation. A built-in intelligent charger provides seamless power management. The general coverage receiver section uses multiple preselectors for optimized reception from 150 kHz to 30 MHz. An integrated antenna tuner, CW reader (Beta) and keyer included. The premium tuning optical encoder is rated at a million revolutions. The enclosure is aluminum with machined aluminum knobs. USB 2.0 port for I/Q and updates. Includes USB cable, DC power cord and manual. Microphone optional. DC power requirements: Rx 2.5 W, Tx 20 W. Only 5.61 x 1.55 x 6" 2 lbs. Made in U.S.A. Expected late May.

List $1195.00 *Order #6010* **Introductory Price..... $999.99**

AnyTone® AT-D868UV *New!*

- Digital DMR / FM
- Lion Battery
- Tier I & II
- Scanning Modes
- Color TFT Display
- 4,000 Memories
- 10,000 Talk Groups
- 250 Zones
- 250 Channels per Zone
- 150,000 Digital Contacts
- 12.5/25 FM, 12.5 DMR
- CTCSS/DCS
- Easy Import/Export Ch.

The **Anytone AT-D868UV** DMR / FM *Part 90* handheld transceiver brings dual band VHF/UHF coverage with all the latest features. Coverage is 136-174 and 400-480 MHz. Power may be set at 6, 4, 2.5 or 1 Watts. Supported bandwidths are 12.5/25 kHz FM and 12.5 kHz DMR. With USB programming cable, belt clip, flexible SMA-J (female) antenna, printed manual, drop in rapid charger, AC adapter, 7.4V 3100 mAh Li-ion battery and hand strap.

AT-D868UV *Order #0868* **$169.95**

YAESU FTM-7250DR

The **Yaesu FTM-7250DR** C4FM/FM 2 meter / 440 MHz mobile transceiver, with 50 Watts. Big 3 watts of audio. Includes: CTCSS/DCS encode/decode with split Tone and DCS encode, RF Squelch, TOT, APO, ARS, BCLO, 225 alpha memories, status LED cluster. Join the *Fusion* digital revolution! With MH-48A6JA DTMF hand mic, USB Cable, Bracket and DC Power Cord.

Order #0725 **$259.95**

ALINCO

Alinco promotion ends 06/30/18

Order	Model	Regular	Comment	Price	Pg.
#1656	DJ-500T	$99.95	New 2M/440 HT	$99.95	65
#1007	DJ-X07T	189.95	Sale!!	119.98	15
#4011	DJ-X11T	299.95		299.95	15
#1980	DR-135TMkIII	169.95		169.95	58
#6071	DR-138T	199.95		199.95	58
#0638	DR-638T	359.95		359.95	58
#0735	DR-735T	319.95	New 2M/440 Mobile	319.95	58
#4185	DR-B185T	169.95	New 2M 85W Mobile	169.95	58
#0084	DX-R8T	429.95	Joe Carr Loop Book #0016	429.95	10
#5008	DX-SR8T	489.95		489.95	51

ANYTONE

Order	Model	Regular	Comment	Price	Pg.
#0868	AT-D868UV	$169.95	New Dual-band DMR HT	$169.95	64

AOR

Order	Model	Regular	Comment	Price	Pg.
#0083	AR8200Mk3B	719.95		719.95	13
#1860	AR8600Mk2B	959.95		959.95	13
#6369	AR-DV1B	1199.95	Free UPS	1199.95	12
#0202	AR-miniB	259.95	Pocket sized wideband rx.	159.95	14

BEARCAT-UNIDEN

Order	Model	Regular	Comment	Price	Pg.
#3885	885	$389.95	New CB *and* Scanner!	$389.95	19
#5365	BC365CRS	99.95		99.95	16
#4325	BCD325P2	369.95	With *APCO25 Phase I/II*	369.95	16
#0436	BCD436HP	489.95	With *APCO25 Phase I/II*	489.95	17
#4536	BCD536HP	569.95	With *APCO25 Phase I/II*	569.95	18
#4996	BCD996P2	449.95	With *APCO25 Phase I/II*	449.95	17
#0015	BCT15X	179.95		179.95	17
#6420	HomePatrol II	479.95	With *APCO25 Phase I/II*	479.95	17
#6100	SDS100[1]	T.B.A	See our website!	T.B.A	17

C CRANE

C Crane promotion ends 06/30/18

Order	Model	Regular	Comment	Price	Pg.
#3682	CC Radio2BE	$159.95	Free *Discover DXing* #0009	$159.95	22
#6155	CC Radio2TE	159.95	Free *Discover DXing* #0009	159.95	22
#0034	Skywave	79.95	AM/FM/SW/Air/WX	79.95	9
#0434	SSBSkywave	149.95	AM/FM/SW/Air/WX [SSB]	149.95	9

COMMRADIO

Order	Model	Regular	Comment	Price	Pg.
#6010	CTX-10	$999.99	Expected late May	$999.99	49

GRUNDIG - ETON

Grundig promotion ends 06/30/18

Order	Model	Regular	Comment	Price	Pg.
#6050	Exec.Satellit	$199.95	New model!	$199.95	4
#0062	Exec.Traveller	69.95	New model!	69.95	4
#0096	Field-BT	129.95	• Free Eton Mini!	129.95	4
#6005	FRX-5 *SWL*	79.98	Wind-up/solar AM/FM/SW	79.98	4
#0154	Mini	39.95	Sale!	34.95	4

TYT

Order	Model	Regular	Comment	Price	Pg.
#0380	MD-380 UHF	$99.95	UHF DMR/FM HT	$99.95	60
#3390	MD-390	149.95	UHF DMR/FM HT	149.95	60
#0217	MD-2017	159.95	VHF/UHF DMR/FM HT	159.95	60

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Universal Radio, Inc.
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NEW Product Line ...
We are pleased to offer the exciting line of **INRAD** microphones.

- **Prices and promos are subject to change!**
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- Mfg. supply some free items directly.
- Coupon applied after state sales tax if any.
- Promotions may be extended or cancelled.
- Returns subject to a 15% restocking fee.
- Used equipment list available on request.
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Universal Radio ... Quality Equipment Since 1942.

[1]This device has not been approved by the F.C.C. This device may not be offered for sale or lease or be sold or leased until approval of the F.C.C. has been obtained.

Universal Radio - Prices & Special Offers

KAITO - TECSUN

Kaito promotion ends 06/30/18

Order	Model	Regular	Comment	Price	Pg.
#2108	KA108 BLK	$59.95		$59.95	7
#0131	KA500 BLK	49.95		49.95	7
#5804	KA600 GRN	79.95	Free *Discover DXing* #0009	79.95	8
#2700	KA700 BLK	89.95	New model	89.95	8
#5814	PL-606 BLK	59.95		59.95	6
#3681	PL-360 BLK	59.95		59.95	6
#5902	PL-380 SIL	59.95		59.95	6
#2600	PL-600	89.95		89.95	6
#5903	PL-660 BLK	109.95		109.95	6
#0088	PL-880 BLK	159.95		159.95	7
#0388	PL-880 SIL	159.95		159.95	7

KENWOOD

Kenwood promotion ends 06/30/18

Order	Model	Regular	Comment	Price	Pg.
#3072	TH-D72A	$449.95	$50 Coupon+Go-Bag	$399.95	59
#4074	TH-D74A	599.95	$50 Coupon+Go-Bag	549.95	59
#3020	TH-K20A	139.95	Free HT Go-Bag	139.95	59
#0281	TM-281A	154.99	$25 Coupon	129.99	54
#0309	TM-D710GA	639.95	$40 Coupon +Free UPS	599.95	54
#0071	TM-V71A	389.95	$25 Coupon	364.95	54
#0480	TS-480SAT	1224.95	$250 Coupon+Free UPS	974.95	53
#2480	TS-480HX	1349.95	$250 Coupon+Free UPS	1099.95	53
#1590	TS-590SG	1699.95	$300 Coupon+Free UPS	1399.95	52
#3990	TS-990S	7699.95	$600 Coupon+Free UPS	7099.95	52
#1978	TS-2000	1739.95	$200 Coupon+Free UPS	1539.95	53
#2797	TS-2000X	2179.98	$250 Coupon+Free UPS	1929.98	53

ICOM

Icom promotion ends 06/30/18

Order	Model	Regular	Comment	Price	Pg.
#3702	AH-4	299.95		$299.95	70
#3438	AT-180	499.95		499.95	70
#0718	IC-718	669.95	$25 Rebate	644.95	48
#5023	IC-2300H	179.95	$20 Rebate	159.95	55
#2730	IC-2730A	319.95	$20 Rebate	299.95	55
#3071	IC-7100	1049.95	$200 Rebate+Free UPS+Visor	849.95	48
#0026	IC-7200	899.95	$100 Rebate	799.95	53
#0173	IC-7300	1349.95	$200 Coupon+$100 Rebate	1049.95	48
#0610	IC-7610	3559.95	$200 Coupon	3359.95	48
#0277	IC-7700	6199.95	Free Jacket Free UPS	6199.95	48
#4557	IC-7851	13499.00	Free Icom Mat (24x35")	13499.00	49
#5091	IC-9100	2199.95	Free UPS	2199.95	48
#2925	IC-PW1	5099.95		5099.95	92
#1030	IC-R 30[1]	T.B.A		T.B.A	15
#2006	IC-R 6-*Sport*-16	189.95	(Black)	189.95	11
#0086	IC-R8600	2499.00	$50 Coupon+$50 Rebate	2399.00	11
#4070	IC-T70A HD	199.95	$20 Rebate +Free go-bag	179.95	60
#0580	IC-V80 *Sport*	99.95	Free go-bag	99.95	60
#0280	IC-V80 *HD*	149.95	Free go-bag	149.95	60
#6031	ID-31A+	299.95	$25 Rebate+Free go-bag	274.95	60
#1151	ID-51A+2 BLK	399.95	Free go-bag	399.95	61
#1551	ID-51A+2 GRN	389.98	Free go-bag	389.98	61
#4100	ID-4100A	419.95	$20 Rebate+Free UPS	399.95	55
#0510	ID-5100ADLX	519.95		519.95	55

✔ NOTE: Customer must apply to manufacturer for rebates. Coupon amounts will be deducted by us at time of sale.

TDXONE

Order	Model	Regular	Comment	Price	Pg.
#6008	TD-Q8A	$59.95		$59.95	64

SANGEAN

Sangean promotion ends 06/30/18

Order	Model	Regular	Comment	Price	Pg.
#4405	ATS-405	$89.95	New AM/FM/SW	$89.95	5
#2909	ATS-909X	249.95		249.95	5
#4909	ATS-909XBK	249.95	New black version	249.95	5
#0214	HDR-14	79.99	HD™ AM/FM Expect 05/25	79.99	20
#4516	HDR-16	99.99	HD™ AM/FM Portable	99.99	20
#6018	HDR-18	169.99	HD™ AM/FM Table Radio	169.99	20
#3520	HDT-20	199.99	HD™ AM/FM Tuner	199.99	20
#0068	PR-D5	79.95	Free *Discover DXing* #0009	79.95	23
#0211	PR-D7	69.95	Free *Discover DXing* #0009	69.95	23
#2015	PR-D15	89.95	Free *Discover DXing* #0009	89.95	23
#4028	WFR-28	139.95	WiFi/FM portable	139.95	20
#3281	WR-2 Walnut	129.95	Free *Discover DXing* #0009	129.95	24
#3282	WR-2 Black	129.95	Free *Discover DXing* #0009	129.95	24

WHISTLER

Whistler promotion ends 06/30/18

Order	Model	Regular	Comment	Price	Pg.
#0824	TRX-1	$549.99		$499.99	18
#0349	TRX-2	629.99		549.95	18
#5020	WS1025	89.95		89.95	18
#1040	WS1040	279.95		279.95	19
#1065	WS1065	289.95		289.95	19

WOUXUN

Order	Model	Regular	Comment	Price	Pg.
#3006	KG-UV6X	159.95		159.95	64

YAESU

Yaesu promotion ends 06/30/18

Order	Model	Regular	Comment	Price	Pg.
#6002	FT2DR	$429.95	$30 Coupon+HT Go-Bag	$399.95	62
#1004	FT4VR	109.95	2m HT expected 05/15/18	109.95	62
#6004	FT4XR	139.95	2m/440 HT expected 05/15/18	139.95	62
#6025	FT-25R	119.95	$20 Coupon+ HT Go-Bag	99.95	62
#0060	FT-60R	159.95	Free HT Go-Bag	159.95	63
#0065	FT-65R	159.95	$20 Coupon+ HT Go-Bag	139.95	62
#6070	FT-70DR	199.95	New! Free HT Go-Bag	199.95	62
#5270	FT-270R	149.95	Free HT Go-Bag	149.95	62
#0452	FT-450D	799.95	$100 Coupon+log book	699.95	56
#0818	FT-818ND	849.95	New! Free Urban Bag	849.95	50
#1857	FT-857D	919.95	$50 Coupon & YSK857	869.95	50
#0891	FT-891	699.95	$50 Coupon & Free UPS	649.95	50
#4991	FT-991A	1469.95	$200 Coupon & Free UPS	1269.95	50
#0980	FT-2980R	179.95	$20 Coupon & Free Mug	159.95	56
#0790	FT-7900R	289.95	With YSK7800+Mug	289.95	56
#0890	FT-8900R	339.95	With YSK8900+Mug	339.95	56
#1200	FTDX1200	1199.95	$200 Rebate+Free UPS	999.95	50
#3000	FTDX3000	1999.95	$300 Rebate+Free UPS	1699.95	51
#0100	FTM- 100DR	319.95	Free Ball Cap	319.95	56
#1400	FTM- 400XDR	629.95	$30 Coupon+Free Ball Cap	599.95	57
#3100	FTM-3100R	159.95	Free Mug	159.95	56
#3200	FTM-3200DR	169.95	Free Ball Cap	169.95	56
#3207	FTM-3207DR	179.95	New 440+Free Ball Cap	179.95	56
#0725	FTM-7250DR	259.95	New 2M/440 FM/C4FM Mob.	259.95	56
#4148	G1000DXA	599.95		599.95	92
#0266	G2800DXA	1299.95		1299.95	92
#6735	M1	749.95		749.95	90
#4061	M100	399.95		399.95	52
#0666	VX-6R	239.95	Free HT Go-Bag	239.95	62

✔ NOTE: Customer must apply to manufacturer for rebates.

Hamvention® 2018 May 18-20, 2018 Xenia, Ohio.
Visit Universal Radio at booths 2005-2006.

universal radio inc.

Universal Radio, Inc.
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☎ 800 431-3939 Orders & Prices
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www.universal-radio.com
dx@universal-radio.com

WE BUY RADIOS

Call, email or write and tell us what you have to sell. We can provide a preliminary quote, subject to inspection.

UNIVERSAL HAS MOVED!

Our *new* address is:

Universal Radio Inc.
651-B Lakeview Plaza Blvd.
Worthington, OH 43085-4774

INTRODUCTION TO UNIVERSAL

Universal was founded in 1942 by F.R. "Gibby" Gibb W8IJ. Universal Service, as it was then called, was located on North Third Street in downtown Columbus, Ohio. Universal carried all the major lines of the time including Millen, Drake, Collins, Hammarlund, Hallicrafters, Johnson and National. Most of the brands have changed, and so has our location. But the same dedication to customer service and satisfaction that our company was founded upon over sixty years ago, still remains. As one of the oldest retail radio stores in the country, we are grateful for the support provided to us by the radio community over these many decades. We will continue to offer the finest in new and used communications equipment at competitive prices. This catalog has been designed to introduce you to the newest and best in communications equipment. As you get to know us, we think you will want to become one of our valued customers.

FACTORY DIRECT DISTRIBUTOR

Universal Radio is a direct authorized distributor for all the major communications lines. We can therefore give you objective advice on all brands of equipment.

ESTABLISHED OVER 75 YEARS

Universal has been serving the amateur and listening community since 1942. You can be assured that we will be here in the future for support and service.

SHOWROOM DISPLAY

Universal is one of only a few stores in the country with a working showroom. Our location is open six days a week and features a wide selection of communications equipment for the ham, shortwave listener and scanner enthusiats. The most popular models are on display and operational! If you travel through Central Ohio, please stop in and listen to our excellent selection of communications products. We are only 20 minutes from downtown Columbus or the airport.

LOW PRICES

You will find our prices very competitive and we do not add a surcharge to your order if you are using a credit card. Since we do buy direct from the manufacturers, we can offer you favorable prices.

MORE INFORMATION

We at Universal think an informed customer is a satisfied customer. We want to provide you with all the information you need to make your next communications purchase. This catalog is a first step towards this goal. We have specification sheets on most large items and will send them to you upon request. A great deal more technical information and full color photos of our products are available at our website:

www.universal-radio.com

You can also reach this same website by typing:

www.RFfun.com

USED EQUIPMENT

Universal offers a fine selection of used equipment for the communications enthusiast. Every piece of used equipment that we take in is thoroughly tested before being released for resale. All our used equipment carries a sixty day parts and labor limited warranty (unless specifically stated otherwise). Whether you are a new hobbyist on a budget, or an advanced DXer looking for a "stand-by" set; check our inventory of used gear! We publish a complete list of used equipment every month! To get your copy send a self-addressed stamped envelope. Our used equipment list is also posted on our website twice weekly:

www.universal-radio.com

Universal Radio has recently added a *Used Equipment Sold Archive* on our website. This resource provides technical information, and valuations for many older radios and accessories.

TRADE-INS

Yes, we do take trade-ins! If you would like to trade your present gear in for a new unit or even another piece of used gear, let us know. Please contact us indicating what you wish to trade-in. Indicate the condition of the equipment and whether you have the box, manual, etc.

WE BUY RADIOS

Do you have radio equipment that you are no longer using? Turn it into cash. Contact Universal for a preliminary quote (subject to inspection).

LAY-AWAY

Universal offers a convenient layaway plan. To place any new item in layaway for up to sixty days, a 33% deposit is required. 33% more is required at 30 days. The balance is required at 60 days (or sooner). The item will be shipped after full payment. There are no service or interest charges.

BENCH TEST

Universal offers a selection of receivers second to none. Upon request, we will inspect and test any radio prior to shipment at no extra charge. This typically adds one day before shipping.

Front Cover: Fred Osterman QSL collection

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614 866-4267 Technical Info.

FAX: **614 866-2339**

E-mail: **dx@universal-radio.com**

Web: **www.universal-radio.com**

UNIVERSAL RADIO COMPANY POLICIES

- **PAYMENT:** We accept Visa, Mastercard, Discover, money orders, cashiers checks and personal checks. Phone order customers please be ready to provide card number, expiration, issuing bank, billing and shipping address plus home & work phone. We request this information for your protection. Personal checks and money orders require time to clear from unestablished customers and/or for large purchases.

- **MINIMUM ORDER:** We have no minimum. Your order is important to us whether it is for $5 or $500.

- **SHIPPING:** We ship most in-stock items within 48 hours (UPS Next Day and Second Day Air orders are shipped within 24 hours). Our normal method of shipment is UPS surface. For books or small orders under $50 we may ship postal. We do not ship C.O.D. We ship Monday through Friday. You may request shipment by other means such as UPS Next Day Air, UPS Second Day Air or Air Freight for export orders. Equipment is packed very carefully and sent insured. Please provide us with a full shipping address. UPS cannot ship to a Post Office box. Flat-rate shipping amounts are for the continental U.S.A. only. We can provide shipping quotes for international customers.

- **PRICES: Prices and specifications are subject to change!** Prices shown are accurate at printing time. We are not responsible for typographical errors. We suggest you call to confirm prices on larger items. Please call toll free: 800 431-3939. For technical questions please call: 614 866-4267.

- **BACK ORDERS:** Universal carries an extensive inventory to minimize "back ordered" items. Because of manufacturer shortages, backorders do occasionally occur. You may cancel any backordered item at any time for any reason and receive a prompt and full refund. On credit card orders we will not bill your card until we actually ship.

- **RETURNS:** Returned items must be received by us in original, as shipped, condition including the original box, manuals, accessories, copy of sales receipt and warranty card. Note: Do not send in the warranty card until after 10 days, and you are certain that the product will suit your needs. Returns must be within **14 days** of purchase. Returned items are subject to a 15% restocking fee. Please contact us for a return authorization number. Shipping is not refundable. Outdoor antennas, rotors, headphones, software and custom cables are not refundable.

- **FOREIGN ORDERS:** Universal Radio is currently exporting only to Canada and/or established customers. The exception is books which ship worldwide. Please email for details.

- **DAMAGED SHIPMENTS:** If you receive a damaged parcel from UPS, note this with the driver and refuse the shipment. It will be returned to Universal and we will replace it for you at no additional cost.

- **COUPONS:** Many amateur manufacturers run "instant" coupon promotions. You do ***not*** need the physical coupon in most cases. Contact Universal to see what coupons are currently available.

TO PLACE AN ORDER:

Mail to:

Universal Radio
651 Lakeview Plaza Blvd. Ste. B
Worthington, OH 43085-4774

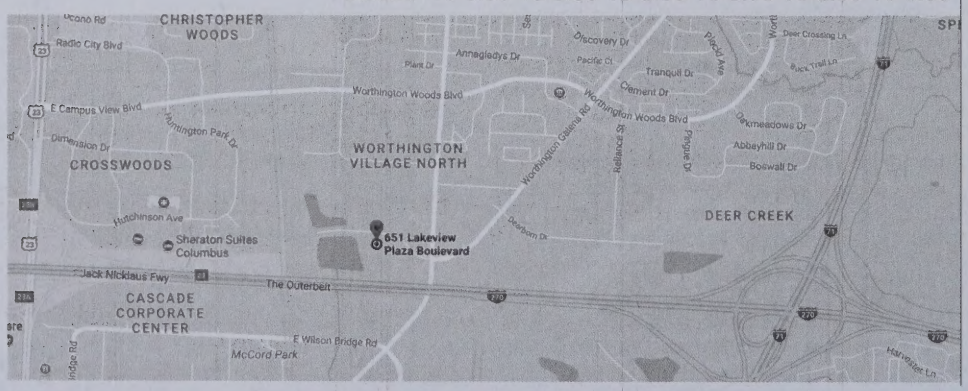
Phone: **800 431-3939 Orders & Prices**
614 866-4267 Technical Info.
We accept phone orders Monday through Friday from 9:30 A.M. to 5:30 P.M. Eastern Saturday from 9:30 A.M. to 3 P.M. Eastern

FAX: **614 866-2339 24 Hour FAX**

E-mail: **dx@universal-radio.com**

SHOWROOM HOURS:

Sun	Mon	Tue	Wed	Thr	Fri	Sat
Closed	10-5:30	10-5:30	10-5:30	10-5:30	10-5:30	10-3:00



FLAT RATE SHIPPING

Our simplified flat rate shipping for U.S.A. customers (except AK, HI, PR) is:

Up to $50.00	$6.95
$50.01 to $100.00	$8.95
$100.01 to $500.00	$9.95
$500.01 to $1000.00	$14.95

Flat-rate charges are based on the total order of the initial shipment. The order total is pre-coupon and pre-tax. The flat-rate charges include adequate insurance. Call for orders over $1000.

USED LIST

To receive our monthly list of used equipment please send us one or more **self-addressed stamped envelopes.** Our used gear is checked in our service shop and carries a 60 day limited warranty. Our used list may also be viewed at:

www.universal-radio.com

PURCHASE

If you have equipment you are not using, why not turn it into cash? Universal will purchase good clean used equipment. Please write, email or call and let us know what you have to sell.

"DEMO" SALE

Universal will not sell returned or demonstrator units as new! From time to time we have such items and can usually offer them at up to 20% off our regular price. Please call to check availability.

TRADE-INS

For trade-in quotes, please call or write us listing the items you wish to trade including any accessories. Indicate condition and whether you still have the original box and manual. Universal will accept trade-ins towards: new, used, higher or lower value equipment. We accept trade-ins from within the U.S. only. Allow 7 days for the trade-in evaluation.

SHIPPING TO UNIVERSAL

Please contact Universal for an authorization number **prior** to shipping your service, return, purchase or trade-in item. When you ship your equipment it is important that it is packaged properly. Use the original box and packing material if possible. If you do not have the original box, wrap the equipment well with bubble wrap then place this in a box with adequate packing material. All equipment should then be placed in a **second box** with packing material to help ensure its safe arrival to us. Be sure to insure your package for its value. Universal Radio will not be responsible for equipment that is damaged in shipment.

GIFT CERTIFICATES

Gift certificates are available in any dollar amount. When ordering a gift certificate indicate *your* name and address **plus** the recipient's name & address.

Gift Certificate
Date Issued: _____
Control Number:
Payable To: SAMPLE
Amount: $____.00 _____ Dollars
Purchaser: _____ Authorized By: _____
universal radio inc.
Universal Radio, Inc.
651 Lakeview Plaza Blvd.#B
Worthington, Ohio 43085
800 431-3939 Orders
614 866-4267 Info.
614 866-2339 FAX
www.universal-radio.com

INTRODUCTION TO SHORTWAVE

Listening to shortwave, or *world band*, radio is an exciting and educational form of entertainment. With a moderate investment, anyone can listen to a variety of broadcasts from around the world.

WHAT IS SHORTWAVE RADIO?

The standard AM broadcast radio band extends from 540 to 1700 kHz. Shortwave radio starts where the standard AM band ends and extends to 30000 kHz or 30 MHz (1000 kHz = 1 MHz). Unlike medium wave signals, shortwave signals will reflect (refract) off the invisible layer above the earth called the ionosphere. While worldwide shortwave reception can occur during the day, best reception is usually during the evening.

WHAT CAN I HEAR?

The shortwave spectrum is vast. There are potentially thousands of stations that can be heard. The major types of stations are:

International Broadcast Stations

Many major countries in the world, as well as many small countries, have English transmissions that can be heard in North America. These English broadcasts can be anywhere from 1/2 hour to several hours in length. Some countries beam their transmissions directly to North America to enhance reception for Canadian and American listeners. Some of the easier English broadcasts to hear come from:

BBC London	Radio Slovakia
Radio Argentina	Voice of America
Radio Japan	China Radio Intl.
Vatican Radio	Voice of Vietnam
Radio Romania	Radio France Intl.
Radio Nigeria	Korean Brdcst. Sys.
Radio Thailand	Radio Havana
Voice of Korea	Voice of Turkey
Radio Ukraine	Radio Prague
Radio Cairo	Radio New Zealand
Channel Africa	Radio Taiwan Intl.

These and other stations design their programs for international audiences. There are also a number of regional and local shortwave stations that broadcast to their native populations. These lower powered stations typically transmit in the local language. A variety of interesting programming and music can be heard from these stations, especially from South America, Africa and the Pacific. Non-English broadcasts are also a great way to keep your foreign language skills sharp.

Radio Amateur Stations (Hams)

There are over 2,000,000 licensed amateur radio operators all over the world. Listening to hams can be interesting and a good way to learn more about ham radio. Hams are assigned to a different set of frequencies than the international broadcasters. If you want to listen to amateur stations, you will need a "general coverage" receiver. In order to transmit greater distances and efficiently use their allocated frequencies, hams transmit in a special voice mode called single sideband (SSB) and also Morse code. Again, it is important to select a radio capable of receiving these modes. Our staff will direct you to radios best suited for this.

Citizen Band (CB)

CB stations can be heard on most general coverage receivers. CB transmissions can be found between 26 and 28 MHz.

Utility Stations

If you subtract from the shortwave spectrum all the international broadcasters, ham and CB stations, you will be left with a large number of stations loosely labeled "utility stations." These are commercial, government, military and research stations whose transmissions are not designed for general audiences. Some types of utility stations:

International Aeronautical

International commercial aircraft communicate with distant air centers using shortwave radio. It would not be surprising to hear an AirFrance jet talking to Santiago Control, or a JapanAir flight working Anchorage Control. We are fortunate that the international aeronautical language is English!

Maritime Stations

Shortwave radio remains a secondary link between ships at sea and land. There are hundreds of coastal stations and a great many ships which can be monitored on a shortwave radio capable of SSB and Morse reception. Listening to ship-to-shore channels and distress frequencies can be particularly interesting.

Military Stations

While "sensitive" military traffic is sent via satellites or encrypted, numerous military transmissions can be heard and identified. The following navies can easily be heard with a communications receiver: American, French, South African, British, Argentine and New Zealand.

Time Stations

Many countries have stations which send out very precise time transmissions. Most include voice identifications and many can be heard in the USA.

Miscellaneous

There remain a number of stations that do not fall neatly into the previous categories. Illegal "bootleg" stations can be heard from time to time. Africa and Asia host several "clandestine" stations run by various rebel factions. They can be heard in the U.S. when they are not being jammed. There are a number of stations which transmit series of numbers without identification. While they are easy to hear, no one has conclusively determined their intent. Even some Russian and American satellites in low orbit can be monitored.

WHAT KIND OF EQUIPMENT DO I NEED?

The answer depends on what you want to hear. If the international broadcast stations are your main interest, you may be satisfied with a modestly priced portable model covering these international broadcast bands. Portables are generally priced from $50 to $500. If you would like to listen to the various utility or amateur stations you will want to consider a radio with general coverage (full shortwave coverage from 1.7 to 30 MHz) and single sideband capability. These larger, more advanced radios are called communications receivers and are priced from $500 up. Used models are usually in stock at Universal, and can afford a considerable savings. Contact us for a copy of our used list.

WHAT DO I USE FOR AN ANTENNA?

Good shortwave reception is possible with a very modest antenna. Portables include a whip antenna which will work quite well. Many portables and all communications receivers provide an external antenna jack (or terminal). Many listeners simply attach a 20 to 40 foot length of regular insulated wire to this jack and then stretch it across the room. This will yield surprisingly good results. However, if you can string the wire outdoors to a tree or pole, still better reception will result. Universal can provide the wire, insulators, *Coax-Seal* and lead-in cable for your antenna. Other specialized antennas are also available.

> ***Caution:*** *Avoid overhead utility lines when stringing outdoor antennas. Contact with overhead lines can cause electrocution. Outdoor antennas should be grounded to help prevent lightning damage. If you are new to antenna construction please request a free copy of our "Antenna Safety Advisory".*

HOW DO I KNOW WHERE TO TUNE?

One of the most exciting aspects of shortwave listening is simply tuning the dial and discovering stations from all ends of the earth. However, there are times when you will want to tune a particular country, perhaps because of an important event occurring there. An excellent book for the shortwave listener is the *World Radio TV Handbook.* This annual publication will guide you to the proper frequency. If you want to hear the exciting "utility" stations, the book *Guide to Utility Stations* is a "must." The North American Shortwave Association produces an excellent monthly bulletin for shortwave broadcast listeners and DXers called the *NASWA Journal.* Visit their website to learn about subscribing to this excellent publication:

www.naswa.net

WHAT IS U.T.C. or G.M.T. TIME?

In order to avoid the confusion of many time zones, hams and international broadcasters always refer to time at the zero meridian (which runs through Greenwich, England). This time zone is five hours ahead of Eastern Standard Time (4 hours ahead of Eastern Daylight Time). This 24 hour format is referred to as Coordinated Universal Time (UTC). For example 4:00 P.M. EST = 21:00 UTC.

WHAT IS THIS I HEAR ABOUT "QSLs"?

Most international broadcast stations like to hear from their listeners. If you send a "reception report" to a foreign broadcast station they will send you a confirmation of your reception in the form of a postcard called a "QSL". They also will usually send you a program guide and information about their country. A reception report should include the date and time you heard the station (in UTC), the frequency heard, reception quality and 15 to 30 minutes of program content to validate reception. Also tell them how you liked the program!

WHERE CAN I LEARN MORE?

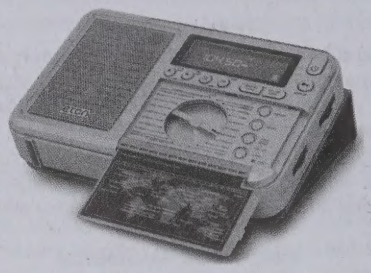
Visit ***www.DXing.com***

eton EXECUTIVE SATELLIT

The **Eton** ***Grundig Executive*** **Satellit** is the culmination of 50 years of Satellit models. This latest version delivers the great radio reception and audio quality you have come to expect from Grundig and Eton radios. The radio provides full reception of longwave, medium wave [AM band], shortwave and FM broadcast (with RDS). Additionally, it covers the civil VHF aeronautical band. 700 memories store your favorite stations. The dual conversion design provides great sensitivity and image rejection. The Sync Detector feature improves the radio's sound quality by reducing distortion and fading. The Local-DX switch allows you to adjust the sensitivity of the radio. A rich orange display indicates your exact frequency and signal strength. There is a built-in clock timer, an earphone jack for private listening, a Line Input jack to connect an external audio source and an external shortwave antenna jack. Supplied with protective carry case that also serves as a radio stand and AC adapter. Requires four AA batteries (not included). 6.6 x 4.1 x 1.2 inches.

Executive Satl. *Order #6050* **$199.95**

eton EXECUTIVE TRAVELER



The **Eton** ***Grundig Executive*** **Traveler** receives long wave, AM, FM and shortwave from 2.3 to 26.1 MHz. The medium wave (AM) step may be set for 9 or 10 kHz. With local and world time settings, radio and buzzer alarm clock settings, sleep timer and snooze light, the Etón Traveler III keeps you on time ... in any time zone. It even displays the temperature to help you prepare for the day. The time zone selection knob is located under a protective cover. The display brightness may be set to *off*, *low* or *high*. And if you want to prevent the radio or alarm from turning on altogether, just hit Lock. Other features include 500 memories, FM RDS to display the station callsigne plus other information, and 6 VDC [+] power input jack. Tuning is easy via a manual tuning knob and up-down arrows. There is a 3.5mm mini earphone jack and luxurious leatherette snap-on protective case cover that also serves as radio stand, supporting the radio at the optimum operating angle. Requires four AA batteries (not included). 5.3 x 3.5 x 1.2". 7.4 oz.

Executive Traveler *Order #0062* **$69.95**

eton FIELD BT

The **Eton** ***Grundig Edition*** **Field BT** keeps you in touch with the world wherever you are. It receives AM, FM and complete international shortwave coverage from 1.7 to 30 MHz. There is a built in digital clock timer. This radio features RDS - Radio Data System that enables FM broadcasters to deliver more than just an audio signal, but also to transmit alphanumeric data, like the station's call letters, style of music, song title, artist and more. It can even display the temperature. Plus, its wide-narrow bandwidth selection improves audio fidelity and minimizes noise. Separate Bass & Treble knobs tailor the sound to your taste. All this, and the radio's larger size combine to be one of the best sounding portables available today. The memory system stores 50 stations: 10 AM, 10 FM, 10 SW-1, 10 SW-2 and 10 SW-3. The AM band can display in 9 or 10 kHz increments. There is a Local/DX switch and battery status icon. Display brightness may be set to Low, Medium or High. Antenna jacks are provided for both MW or SW/FM antennas. Operates on four D cells (not included) or supplied AC adapter. This latest *BT* version adds Bluetooth® technology to allow you to wirelessly play your Bluetooth® music player, Smartphone or other device through the radio! With printed English/French/Spanish owner's manual. 12.4 x 6.9 x 3".

FIELD BT *Order #0096* **$129.95**

eton FRX-5 SWL

The **Eton FRX5** ***SWL Edition*** is your grab-and-go source for local and worldwide information. This special FRX5 SWL Edition receives AM, FM and 12 international shortwave broadcast bands: 2.3-2.6, 3.2-3.6, 3.6-4, 4.6-5.4, 5.6-6.4, 6.6-7.4, 9.1-9.9, 11.5-12.4, 13.5-14.4, 15-15.9, 17.1-18.3 and 21-21.85 MHz. The FRX5 is *quad* powered: solar panel, hand crank, built-in rechargeable lithium battery or three AAA batteries (not included). Wind the hand turbine for four minutes to produce 10-15 minutes of music, news and weather or one minute of talk time. You can also use the micro-USB cable to charge the FRX5's built-in rechargeable battery or use AAA batteries. With digital display and alarm clock and there is an aux-input to play your own tunes. To listen alone, just plug in your favorite headphones. There is a bright LED flashlight in the side panel. Use the glow-in-the-dark locator and illuminated buttons when you're in the dark. And for big-time emergencies, flash the red emergency beacon. The FRX5 *SWL* has an IPX-4 splash proof rating. Ideal for camping trips or preparedness. 5.8" x 7.1" x 2.3" 1.5 lbs.

FRX5 ***SWL*** *Order #6005* **$79.98**

eton MINI

The super compact, super global **Eton Mini** receives AM, FM plus international shortwave in two bands 5.6-10 and 11.65-18 MHz. Features include: rich orange digital display, scanning, metal grill, clock-alarm with sleep timer, key lock and mini earphone jack. The display background brightness may be set to: Off, Low or High. this radio may be powered from two AAA batteries (not included) or plug a 3V AC adaptor (not included). With carry pouch. 4.3" x 2.7" x 0.47".

MINI *Order #0154* **$39.95**

GRUNDIG AN200

The **Grundig AN200** is a passive, fully adjustable indoor antenna for the AM broadcast band. This inductive coupling makes it easy to use with most portables that have an AM Ferrite bar antenna. Simply placing this antenna *near* the radio will improve reception! Just adjust the AN200 tuning knob for maximum gain. There is also an output jack for a *wired* connection to radios with AM antenna terminals. The supplied cable has a 3 conductor 3.5mm plug at one end and bare wires at the other end. [NOTE: This antenna does not pickup up shortwave frequencies].

AN200 *Order #0912* **$29.95**

SANGEAN

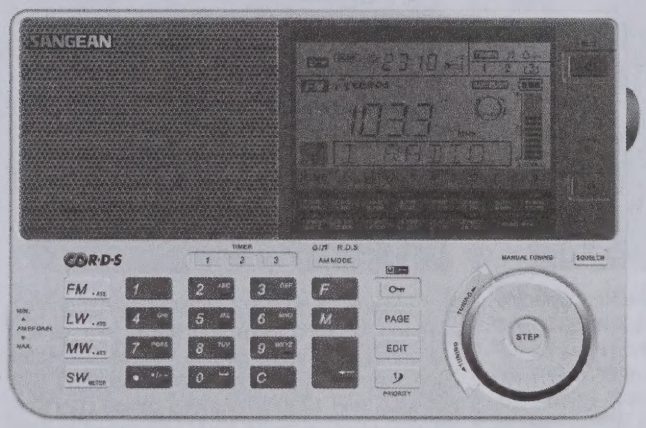
ATS-909X
ATS-909X BK

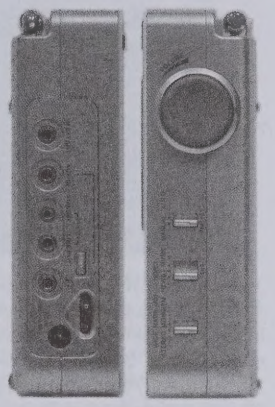
The **ATS-909X** is the proud flagship of the Sangean line. It packs features and performance into a very compact and stylish package. Coverage includes all long wave (153-519 kHz), medium wave (520-1710 kHz) and all shortwave frequencies (1711-29999 kHz). FM and FM stereo to the headphone jack is also available (87.5-108 MHz). The new enlarged LCD features a bright white LED for excellent clarity. Shortwave performance is enhanced with a DSP decoder IC and wide-narrow bandwidth switch. The ATS-909X provides unusually good single side band performance for a portable. SSB tuning in 40 Hz steps permits easy signal clarification. Enjoy a full watt of audio amplification. Five tuning methods are featured: direct keypad entry, auto scan, manual up-down tuning, memory recall or manual knob tuning. The ATS-909X will display FM RDS / RBDS with PS, PTY, RT and CT features for station name and clock in areas where this service is available. A total of 406 memories are available (FM 27, LW 9, MW 18, SW 352 and 1 priority preset). There is a built in world time clock supporting DST and with two editable city names. Other features include: Stereo/Mono switch, RF gain, squelch, auto scan and flip-stand. This radio requires four AA cells (not included). With AC adapter, case, wind-up antenna and manual. 8.2 x 5.2 x 1.5 inches 1.8 lbs. **White** colored case (shown).

ATS-909X *Order #2909* **$249.95**

Black colored case (not shown).

ATS-909X BK *Order #4909* **$249.95**





The new ATS-909"**X**" version offers many improvements over the original ATS-909:

- ✔ Added a battery charger
- ✔ Larger LCD
- ✔ Higher illumination of white LED backlit LCD
- ✔ Rugged and firm cabinet
- ✔ Tripled audio output power to improve fidelity
- ✔ Additional Aux-in (LINE-IN)
- ✔ Improved controls and ergonomics
- ✔ Squelch added for adjusting seek sensitivity
- ✔ 99 presets more than ATS-909
- ✔ Higher selectivity than ATS-909 by DSP tuner
- ✔ Improved sensitivity on shortwave
- ✔ Longer stainless SW/FM telescopic antenna
- ✔ Improved battery cover and tilt stand
- ✔ Independent headphone amplifier

The Sangean ATS-909X left panel features:

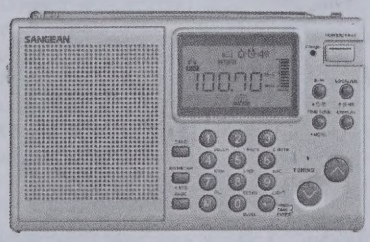
- ✔ Fine Tune Knob
- ✔ AM External Antenna
- ✔ Auxiliary Input
- ✔ Line Output (Record)
- ✔ Record Control (compatible with DAR-101)
- ✔ Stereo Headphone Jack
- ✔ AC Input (9 VAC)

The Sangean ATS-909X right panel features:

- ✔ Volume
- ✔ Three Position Tone Switch
- ✔ Time Set
- ✔ Wide - Narrow AM Selectivity
- ✔ Mono - Stereo FM Switch

SANGEAN

ATS-405

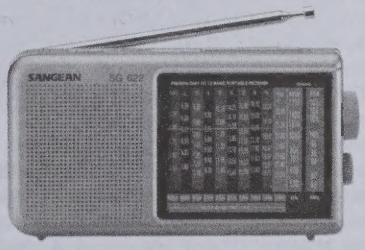


The **Sangean ATS-405** coverage includes AM, FM and 14 SW bands, or in continuous mode from 2.3-26.1 MHz. Tune via the up-down buttons, automatic tuning, keypad or from the 108 memories (36 per band). The backlit LCD shows frequency or time. Other features include: FM stereo to headphone jack, wide-narrow selectivity, signal meter, dial lock, 9/10 kHz MW step, dial lamp, stereo-mono switch, clock, tone switch, dual alarms, fine tuning, auto-scan, sleep-timer, tilt-stand and 6VDC jack. With protective case and AC adapter. Silver-gray finish. Requires four AA cells (not included). 6.4 x 3.9 x1.3" 0.8 lbs.

ATS-405 *Order #4405* **$89.95**

SANGEAN

SG-622

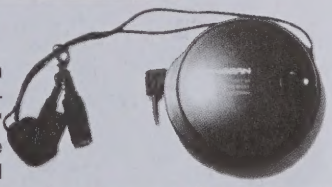


The **Sangean SG-622** is an attractive and affordable analog AM, FM and shortwave radio. The ten shortwave bands cover: 4.5-5.05, 5.8-6.3, 7.1-8, 9.3-9.9, 11.45-12.15, 13.40-14.05, 15.1-15.85, 17.4-18.1, 18.75-19.2 and 21.3-22.1 MHz. This model includes a tuning LED, 2.5 inch speaker, mono mini earphone jack and 4.5 VDC input jack. The analog design is simple to operate and provides great battery life. Requires three AA cells (not included). Only 6.5 x 3.5 x 1.3 inches.

SG-622 *Order #3858* **$39.95**

SANGEAN

ANT-60



The **Sangean ANT-60** portable "roll-up" shortwave antenna will improve the reception of any portable worldband receiver. The antenna wire may be extended up to 23 feet. The ANT-60 terminates with a mini-plug (3.5 mm). If your receiver does not have a mini external antenna jack, an adapter plug is provided to clip the ANT-60 to your radio's whip.

ANT-60 *Order #3184* **$12.95**

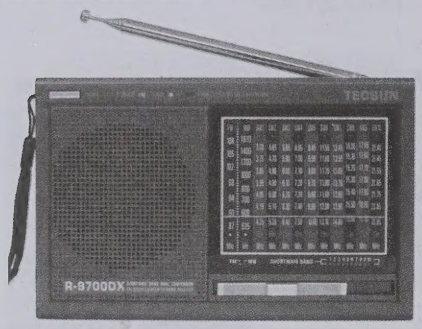
SANGEAN

PS-100

The **Sangean PS-100** *Pillow Mate* speaker sits comfortably under your pillow. You can listen to your radio without disturbing your partner or pet. White with cord that terminates to a stereo mini-plug. 3.5 x 4 x 1 inches.

PS-100 *Order #0885* **$12.95**

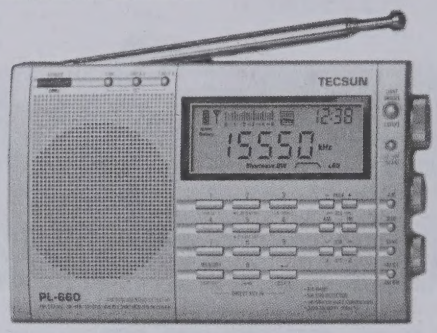
TECSUN R-9700DX



The **Tecsun R-9700DX** is a powerful, dual-conversion portable radio that covers AM (535-1610 kHz), FM and ten international shortwave broadcast bands: 3.7-4.25, 4.65-5.2, 5.85-6.4, 6.95-7.5, 9.45-10, 11.55-12.1, 13.45-14, 15.05-15.6, 17.55-18.1 and 21.4-21.95 MHz. Some people prefer analog over digital readout for simplicity and battery efficiency. Operation is very intuitive. Simply select the shortwave band of interest and dial up or down. Features include tune & stereo LED, antenna jack, flip stand, tone switch, local/DX switch. The backlighting may be set to auto or constant. Stereo FM is provided to the earphone jack. Operates from 4 AA batteries (not included) or included AC adapter. With: carry case, stereo ear buds, wrist strap, wire antenna and English manual. 7.1 x 1.35 x 4.55 inches 14 oz.

R-9700DX *Order #5970* **$55.95**

TECSUN PL-660

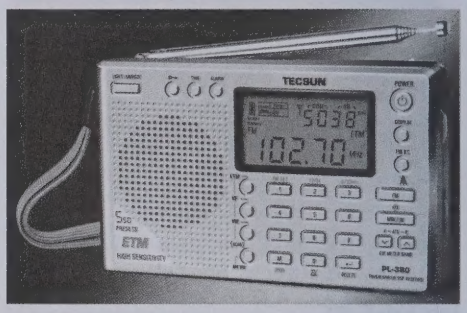


The **Tecsun PL-660** is a sensitive portable radio covering AM, long wave, shortwave, VHF air and FM bands. The radio comes with an awesome 2000 memories: 100 AM/FM/LW/Air, 200 SW, 200 SSB and 1200 for various bands (12x100). Features include dual timer, sensitivity, backlit display, time & temperature display, SW/FM external antenna jack, SSB reception, stereo FM (to earphone jack), synchronous detection, keypad entry, dual conversion, manual tuning, scanning, DX/Normal/Local gain and ATS auto-tune storage. This radio includes: carry pouch, four AA cells, AC wall adapter, stereo ear buds, wire antenna and owner's manual. 7.4 x 1.3 x 4.5 in. 1.1 lbs.

PL-660 BLACK *Order #5903* **$109.95**

PL-660 SILVER *Order #2540* **$109.95**

TECSUN PL-380



The **Tecsun PL-380** *ultralight* covers long wave, medium wave, shortwave from 2.3-21.95 MHz and FM, including FM stereo to the earphone jack. This smart radio features DSP technology using a Silicon Labs si4734 chip to improve performance. It has 550 memories (100 for LW, 100 for MW, 100 for FM and 250 for SW). Both memory and band scanning is supported as well as ETM easy tune memory. Other features include: keypad, lock, clock with alarm and sleep and dial lamp. Band widths of 1, 2, 3, 4 and 6 kHz may be selected. The backlit display shows frequency, time, alarm set, signal strength and temperature (F/C). There is an internal ferrite bar antenna for medium wave (AM band) and a telescopic whip antenna for FM and shortwave. Includes: zippered carry case, stereo ear buds, wire-clip antenna, wrist strap and manual. Requires three AA cells (not included). There is a built-in charging system to charge three NiMH AA cells (if used, not included) via a 5VDC USB port. There is a tilt-stand built into the back panel of the radio. 5.35 x 3.4 x 1.1 inches 7 oz.

PL-380 GRAY *Order #6024* **$59.95**

TECSUN PL-606

The **Tecsun PL-606** is a compact portable radio covering AM (520-1710 kHz), long wave, shortwave (2.3-21.950 MHz) and FM bands. This feature packed radio has FM stereo to the earphone jack, scanning, *Easy Tuning Mode* (ETM), backlit LCD, selectivity control, clock timer with alarm and snooze, 9/10 kHz MW step, battery icon and a USB charging jack. It even uses DSP technology for improved sensitivity and selectivity. You also get a total of 550 memories: 250 for shortwave, 100 for FM, 100 for long wave and 100 for medium wave. The controls are easy to operate. This radio may be tuned manually, via auto tune or memories. This radio operates from two AA cells (not included). Comes with carry pouch, antenna extender, stereo ear buds, wire antenna and manual. 4.9 x 3.3 x 0.9" 6.2 ounces.

PL-606 *Order #5814* **$54.95**

TECSUN PL-360

The **Tecsun PL-360** has to be one of the coolest looking shortwave portables ever. Yes, it looks like a TV remote control, but it is a very decent receiver. It covers medium wave 520-1710 kHz shortwave 2300-21950 kHz and the FM band. Longwave coverage may also be activated. It has a very unique *Easy Tuning Mode* (ETM). ETM does more than the usual ATS. It scans all frequencies without taking up the memory spaces. So you get quick access to all local stations. Great for the traveller. There are also 450 memories (100 AM, 100 FM, 250 SW) available for tuning into your favorite stations. Memory and band scanning are supported. The PL-360 has a removable high sensitivity external AM ferrite antenna. The PL-360 even employs DSP-*Digital Signal Processing* technology, improving clarity and tone quality. The PL-360 can be powered by three AA batteries (not included). It also has 5V mini-USB DC input jack. When using the USB jack, the radio can be used to charge the batteries (rechargeable AA cells only). The PL-360 comes with: medium wave bar antenna, stereo ear buds, wire antenna, pouch and manual. 2.1 x 6.3 x 1.1" 5 ounces.

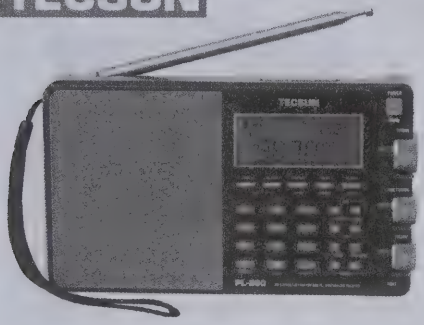
PL-360 *Order #3681* **$59.95**

TECSUN PL-600

The **Tecsun PL-600** is a capable radio, available at a very attractive price. It covers longwave, AM, FM and shortwave. This dual conversion receiver offers selectable wide or narrow selectivity to reduce interference. It is capable of Single Sideband (SSB) reception. Other refinements include: 12/24 hour clock timer, 600 memories, scanning, FM stereo (to ear jack), keypad entry and backlit LCD display. Many user preferences may be adjusted by programming the radio's system codes including memory partitioning and medium wave step. Includes AC adapter-charger, stereo ear buds, four Ni-MH AA cells, carry pouch and external antenna. 7.5 x 1.2 x 4.8 inches 16 oz.

PL-600 *Order #2600* **$89.95**

TECSUN PL-880



The **Tecsun PL-880** offers features not previously available in a radio of this size and price. As expected, you get full coverage of long wave 100-519 kHz, AM from 522-1700 kHz, shortwave from 1.7-30 MHz and FM from 64-108 MHz. Designed for the serious listener and DXer, you can select four bandwidths in AM mode: 9, 5, 3.5 or 2.3 kHz and five bandwidths in SSB mode: 4, 3, 2.3, 1.2 and 0.5 kHz. This radio even has interesting undocumented features such as sync. lock, variable muting, adding seconds display, etc. The PL-880 includes: carry pouch, ear buds, wire antenna, USB cable and #18650 Li-ion battery. Now available in black or silver colored case.

PL-880 BLK	*Order #0088*	**$159.95**
PL-880 SILV	*Order #0388*	**$159.95**
18650 Battery	*Order #6501*	**$9.95**

DEGEN DE26

The **Degen DE26** is a compact radio covering AM, FM and shortwave band (3.2-21.85 MHz). FM stereo is available to the earphone jack. It also features an Mp3 player, accepting micro-SD/TF cards up to 8GB (not included). There is an AUX Input jack on the top panel. The display indicates battery health. The AM band step may be set for 9 or 10 kHz. There is a clock function. Includes: BL-5C 3.7V Li-Ion battery, USB charging cable, wrist strap and manual. Requires a USB power source to recharge battery. 2.5 x 4.5 x 0.75".

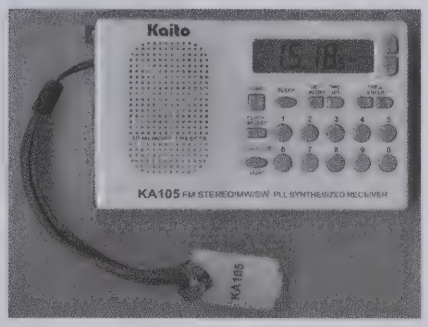
DE26 *Order #3026* **$34.95**

KAITO PST-17U

The **KaitoPST-17U** plugs into an AC wall outlet and provides *two* USB charging ports. Input is 100-240 VAC 50/60Hz and output is 5 VDC 3400 mA.

PST-17U *Order #6822* **$13.95**

KAITO ELECTRONICS INC. KA105



The **Kaito KA105** has a striking aluminum alloy front panel. This stylish portable tunes AM from 520-1710 kHz (10 kHz steps), shortwave from 5.95 to 15.60 MHz (5 kHz steps) and FM from 87.5 to 108 MHz. Tuning is easy with manual tuning, seek tuning, memory tuning and direct keypad entry. It features 30 memory presets. A dual 24 hour clock has alarm and sleep functions. Other controls include: stereo-mono switch, lock switch and LCD lamp switch. There is a jack for external power (3-5 VDC) or the radio operates from two AA cells (not supplied). There is a built-in ferrite antenna for AM and a telescopic whip for SW and FM. There is also an external antenna jack for SW. The KA105 comes with: AC adapter, cloth carry pouch, external wire antenna, wrist strap (with backrest clip) and stereo earbuds. 4.25 x 2.9 x 0.9". One year limited manufacturer's warranty.

KA105 *Order #0105* **$49.95**

KAITO ELECTRONICS INC. KA108

The **Kaito KA108** is an AM, FM stereo, shortwave receiver with a special record function to record off the air automatically! It saves the MP3 audio to a microSD card or USB thumb drive (neither included) inserted into the top panel. You can even set it to record automatically when you are sleeping. Medium wave tunes from 510 to 1710 kHz in 9 or 10 kHz steps. Shortwave coverage is continuous from 2.3 to 23 MHz. It also features a large backlit display with an 8 second auto-fade feature to conserve battery life. The display shows: battery capacity, stereo reception, signal meter and conventional alarm functions with two programmable wake up times. A total of 400 memories are provided: 100 AM, 100 FM and 200 shortwave. There is a line input jack and stereo earphone jack plus a micro-USB port for battery charging. Comes with: BL5C Li-ion battery, USB charging cable, *Owner's Manual* and *Quick-Guide*. One year limited mfg. warranty. 5.5 x 3.25 x 1".

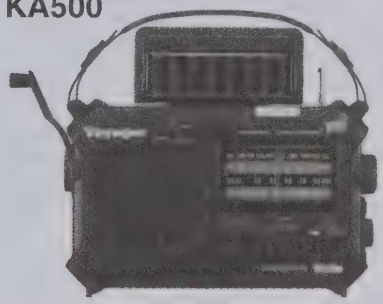
KA108 BLK *Order #2108* **$59.95**

KAITO ELECTRONICS INC. KA450

The **Kaito KA450** can be powered by dynamo cranking, solar panel power, three AA cells (not supplied), built-in rechargeable battery pack, AC adapter or from a compx4uter via the USB port. The radio is designed to charge some other electronic items. It has a bidirectional USB jack to connect with many standard USB enabled items like iPods, cell phones, etc. This radio tunes AM, FM and shortwave from 3.2-8 and 9-18 MHz. The weather band has an alert feature. The bottom side of the solar panel has a 5 LED reading lamp and the radio has an LED flashlight on the side. With AC adapter. Green case. 8 x 4.5 x 2.5" 1 lb.

KA450 GRN *Order #5360* **$39.95**

KAITO ELECTRONICS INC. KA500



The **Kaito KA500** ***Voyager*** has all the features that you need in an emergency situation. There are six ways to power the KA500: Dynamo Cranking, Solar Panel Power, 3 AA cells, built-in Ni-MH battery pack, optional AC adaptor charge or from a computer via the USB port. It has a bright five LED reading lamp on the back panel. The radio is designed to charge out for many electronic items, it is built with a USB jack that can connect with many standard USB enabled items. Receives AM, FM and two shortwave bands covering 3.2-8 and 9-22 MHz. Weather band This radio tunes AM, FM and shortwave in two bands: 3.2-8 and 9-22 MHz. The weather band tunes 162.400/162.425/162.450/162.475/162.50/162.525/162.55 MHz and has an alert feature. Includes BT500 NiMH battery. Black rubberized weather resistant body.

KA500 BLK	*Order #0131*	**$49.95**
AD500 AC Adptr.	*Order #5217*	**$12.95**
BT500 NiMH	*Order #6743*	**$9.95**

KAITO ELECTRONICS INC.

KA600L

The **Kaito KA600L *Voyager Pro*** has features you need in an emergency situation. Reception includes AM, FM, NOAA weather and international shortwave broadcasts from 2.3 to 23 MHz. The weather band has an alert feature. There are four ways to power this radio:

1. Dynamo cranking: 120 turns per minute of cranking will power the built in Li-ion battery pack.
2. Solar panel under the direct sunlight.
3. A built-in rechargeable #18650 Li-ion battery.
4. Optional AC adaptor.

The dynamo power source features a high quality AC type brushless generator. The solar panel powers the radio by itself and charges the built-in batteries as well. To maximize the sunlight's rays, the solar panel is designed to tilt with the sun's position to receive the energy during the day. On the bottom side of the solar panel is a five LED reading lamp that you can use in poorly lit conditions. The radio even has an integrated keypad and multifunction LED flashlight. It has a USB jack that can connect to many standard USB enabled devices such as your iPod or cell phone. This lets you charge many cell phone models by cranking or solar power. Includes Owner's Manual and USB cable. Available in silver, black or green.

KA600L SIL	*Order #5856*	**$79.95**
KA600L BLK	*Order #0470*	**$79.95**
KA600L GRN	*Order #6741*	**$79.95**

KA008

The **Kaito KA008** is a self sufficient digital radio covering AM, FM and four SW bands: 4.0- 9.0, 9.0-14, 14-19 and 19-26.1 MHz. The KA008 has a built in hand generator and solar cell array for internally recharging 3 NiMH AA cells (not supplied). The KA008 may be operated from the supplied AC adapter. This radio has a built-in emergency LED lamp and clock-timer. Comes with: AC adapter, earbuds, wrist strap and soft wire antenna. Size: 6.5 x 5.5 x 2.25 inches. Ninety day limited manufacturer's warranty.

KA008	*Order #4573*	**$29.98**

KAITO ELECTRONICS INC.

KA700

The **Kaito KA700 *Voyager XL*** is a versatile device for entertainment *and* emergency situations. It receives AM, FM and all 7 NOAA weather channels (**but *no* shortwave**). It has a Micro-SD card slot to play music in MP3, WAV or MAW formats. SD cards up to 32Gb supported. The Bluetooth function lets you stream music from other Bluetooth enabled devices. There is also a conventional aux. input jack. The radio may be scheduled to record at a programmed time. On the bottom side of the solar panel is a five LED reading lamp that you can use in poorly lit conditions. The radio has a built-in multifunction LED flashlight. The USB port lets you charge USB cell phones. The radio can be powered from the supplied #18650 Li-ion battery, solar power, optional AC adapter or hand crank. With #18650 battery installed, USB charging cable and manual.

KA700 BLK	*Order #2700*	**$89.95**
KA700 RED	*Order #3700*	**$89.95**
KA700 GRN	*Order #4700*	**$89.95**
KA700 YEL	*Order #5700*	**$79.98**

KAITO ELECTRONICS INC.

KA350GY

The **Kaito KA350** is a compact emergency radio. You can power it by dynamo cranking, solar panel, three AAA cells (not supplied), built-in rechargeable Ni-MH battery pack, AC adaptor (not supplied) or via a USB port. The KA350 tunes AM, FM and shortwave 9.3-15.6 MHz *plus* it gets the 7 weather channels. A five LED flashlight is on the side panel. Includes ear buds. 5.8 x 2.9 x 0.75"

KA350	*Order #2350*	**$29.95**

KAITO

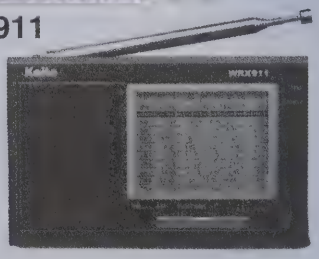
AD800

The **Kaito AD800** AC adapter has USB 5 VDC 500 mAh mini-USB output to power many of today's compact portable receivers such as: G2, KA350, KA800, KA801, DE1123, DE1125, DE1126, PL360, PL380, PL390, PL606. Input 100-240 VAC 50/60 Hz.

AD800	*Order #5871*	**$12.95**

KAITO ELECTRONICS INC.

WRX911



The **Kaito WRX911** provides worldwide listening on a budget. This analog portable covers AM, FM and nine shortwave bands: 4.60-5.20, 5.75-6.40, 6.95-7.65, 9.30-9.90, 11.55-12.10, 13.55-13.85, 14.85-15.80, 17.40-18.05 and 21.30-21.95 MHz. The WRX911 is easy to use and fits in your shirt pocket. Requires two AA cells (not supplied) or 3 VDC. Because this radio does not have a digital display it is a good choice for situations where battery efficiency or simplicity is an important factor. Great for camping. With a cloth carry pouch, earbuds and wrist strap. A compact 4.5 x 3 x 1 inches. Blue colored case.

WRX911 Blue	*Order #1011*	**$22.95**

KAITO ELECTRONICS INC.

KA390

The **Kaito KA390** is an affordable and efficient radio for camping and emergency use. Because it has an analog display, and operates from 3 D batteries (not included), it has an amazingly long run time .... up to 300 hours (depending on volume)! It gives you the four important bands: AM 520-1710 kHz, FM 87-108 MHz, NOAA weather channels 1 through 7 *and* six shortwave international broadcast bands: 41m 7.1-7.35 MHz, 31m 9.4-9.9 MHz, 25m 11.8-12.1 MHz, 22m 13.55-13.85 MHz, 19m 15.1-15.8 MHz and 16m 17.45-17.9 MHz. The left panel features an LED light source, earphone jack and 6 VDC [+] input jack. There is an LED power lamp on the front panel.

KA390	*Order #1490*	**$27.95**

KAITO

PST-17U

The **KaitoPST-17U** plugs into an AC wall outlet and provides *two* USB charging ports. Input is 100-240 VAC 50/60Hz and output is 5 VDC 3400 mA.

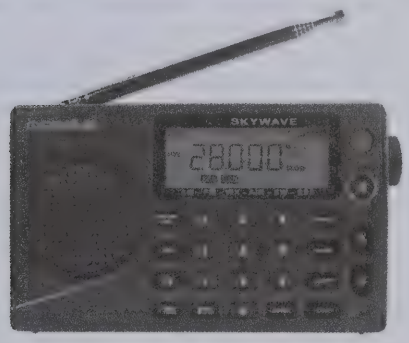
PST-17U	*Order #6822*	**$13.95**

C.CRANE SKYWAVE

The **C Crane Skywave** receiver tunes AM, FM, shortwave (2.3-26.1 MHz), VHF air and the NOAA weather channels. You can directly enter a frequency or engage the auto scan and store feature. The LCD display is backlit. Features include: 12/24 hour clock, fast or fine manual tuning, 400 memories, 3.5mm earphone jack and S-meter. Operation is from 2 AA batteries (not included) or optional AC adapter. Comes with CC ear buds, manual and carry case. 4.75 x 3 x 1.2 inches.
SKYWAVE *Order #0034* **$79.95**

Optional AC adapter for SKYWAVE.
SKWVP *Order #6434* **$14.95**

C.CRANE SKYWAVE-SSB



The **C Crane Skywave-SSB** receiver tunes AM, FM, shortwave (1711-29999 kHz), VHF aviation and even receives the NOAA weather alerts. Unlike most other radios of this size, it can pickup up SSB - Single Sidband transmissions giving you additional interesting listening opportunities for aeronautical, marine and amateur radio stations that transmit in the SSB mode. You can directly enter a frequency or engage the auto scan and store feature. Feataures include: backlit LCD, 12/24 hour clock, fast or fine tuning, tone switch and 400 memories. Multiple bandwidths are available to combat interference from stations close on the dial. 3.5mm earphone jack . Operation is from two AA alkaline or NiMH batteries (do not use Li-ion). Batteries are not included. An optional SWKWVP AC adapter-charger is available. Comes with CC ear buds, manual and carry case. 4.75 x 3 x 1.2 inches. 4.75 x 3 x 1.1 inches.
SKYWAVE-SSB *Order #0434* **$149.95**

Optional AC adapter.
SKWVP *Order #6434* **$14.95**

GP-5/SSB Gen3

The **CountyComm GP-5/SSB Gen 3** provides serious HF communications monitoring in a unique form factor and at a great price. The radio covers medium wave 520-1710 kHz, shortwave 1700-30000 kHz and stereo FM. Unlike most radios in this price category, the GP-5/SSB provides LSB and USB single sideband reception. It has a unique Easy Tuning Mode (ETM) that scans all frequencies without consuming memory spaces. So you get quick access to all local stations. Great for the traveller. There are also 550 regular memories (100 AM, 100 FM, 250 shortwave and 100 for SSB) available for tuning into your favorite stations. Another unique GP-5/SSB Gen 3 feature is its removable high sensitivity external LW/MW ferrite antenna. This directional antenna clearly enhances AM band reception. The GP-5/SSB Gen 3 employs DSP (Digital Signal Processing) technology, improving clarity and tone quality. There is an adjustable sleep timer. The radio can be powered by three AA batteries (not included). It also has a 5V mini-USB DC input jack. When using the USB jack, the radio can be used to charge the batteries (rechargeable AA batteries only). Includes: LW/MW bar antenna, stereo ear buds, pouch, belt clip, wire antenna and manual. This model is low cost, but effective SSB reception and its compact size makes it a strong choice for preparedness applications. This latest Gen3 version adds colored keys, stainless steel whip antenna, louder audio and longer run time.
GP-5/SSB Gen3 *Order #0906* **$89.95**

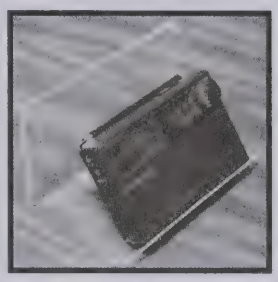
Optional AC adapter for GP-5/SSBGen3.
SKWVP *Order #6434* **$14.95**

Optional USB CBL A Power/Charging Cable
USB CBL A *Order #6799* **$4.95**

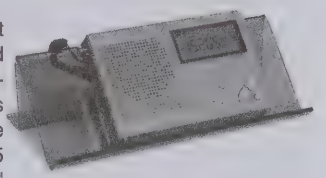
GO-BAG

This insulated bag is a great way to protect your scanner. There is plenty of room for your radio, batteries, accessories, directories and more. The top is zippered and it has a carry strap plus an open pocket on the front panel, a webbed pocket under the top cover and a webbed side pocket. 8 x 6 x 5". Blue.
Universal Go-Bag *Order #5733* **$7.95**

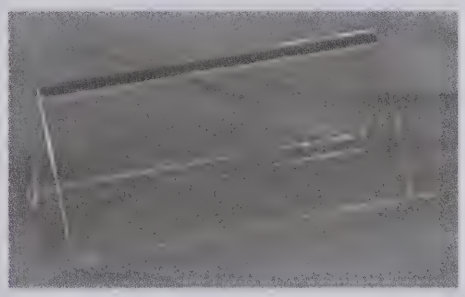
RADIO STANDS



The **CLEAR MED** is a handy clear plastic stand supports your Grundig G3, G4, G6, G4000A at the optimum viewing angle. (The radios shown are not included). Size: 6.75 x 4.5 x 4.75 inches (5.2 inches on the slant).
CLEAR MED *Order #0022* **$8.95**



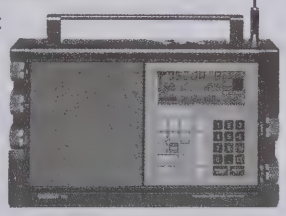
Translucent blue mini-stand for small portable radios such as the KA11, KA105 and SWP. 7" wide, 3" on the slant. Radio shown is not included.
BLUE MINI *Order #4270* **$6.95**



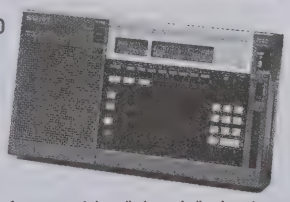
This 12" wide, large clear stand holds the bigger radios such as the CSW, E1 and Field at an optimum viewing and operating angle.
CLEAR LRG *Order #3873* **$18.95**

CLASSIC RADIOS

Grundig Satellit 700



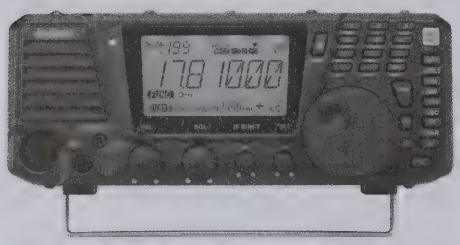
Sony ICF-2010



Are you looking for an older "classic" shortwave radio? The **Used Department** at Universal Radio contains an ever changing assortment of used amateur and shortwave radio equipment. Please visit our website to review our current offerings with photos for many key items. Our ***Radio Archive*** section includes an informative presentation of recently sold radios with values, specifications and photos. It's like a radio museum! Equipment changes daily and is subject to prior sale.

ALINCO

DX-R8T



The **Alinco DX-R8T** receiver covers 150 kHz to 30 MHz in SSB, CW, AM and FM modes. Features include: IF shift, band and memory scanning, attenuator, preAmp, RIT and noise blanker. The front panel head is remotable up to 16 feet with the optional EDS-17 cable. Enjoy 600 alphanumeric memories (3 banks of 200 channels). There are rear panel connectors for external devices including IQ output for possible use in SDR applications, DRM, external decoding, etc. Supplied with DC cord and Owner's Manual. Requires 12 VDC at 1 Amp. Please note that an AC power supply is not included with this radio. A 12VDC filtered 3 Amp (or greater) power supply is required. We suggest the Pyramid PS-8KX. Size: 9.45 x 3.95 x 11.6 inches.

List $449.95 *Order #0084* **Please call**

DX-R8T OPTIONS

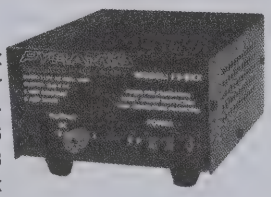
#	Item	Description	Price
5186	**EDS-17**	Head Ext. Cable 16 feet	**$54.95**
3664	**EDC-36**	Cigar Lighter DC Cable	**24.95**
1695	**ERW-7**	USB PC Interface Cable	**45.95**
5366	**PS-8KX**	Pyramid power supply Shown right.	**44.95**

SPECIFICATIONS

Receiver Coverage: 30 kHz - 29.99999 MHz
Modes: USB/LSB, CW, AM, FM
Operating Temp. Range: +14° to +140° F
Frequency Stability: ±1ppm -10° to +50°C
Memory Channels: 600 alphanumeric
Memory Banks: 3 banks of 200
RIT Range: ±1.2 kHzAntenna Impedance: 50 Ohms unbalanced
Power Requirement: 13.8 VDC ± 15%
Current Drain Receive @13.8VDC: 1 Amp,
Current Drain Squelch @13.8VDC: 0.7 Amp
Dimensions (W, H, D): 9.45 x 3.95 x 11.6 inches
Weight: 9 lbs.
Receiver System: Double Conversion Superhet.
Sensitivity: SSB, CW: (0.15-1.8 MHz) 1µV
(1.8-30 MHz) 0.25µV
AM: (0.15-1.8 MHz) 10µV
(1.8-30 MHz) 2µV
FM: (28-30 MHz) 0.5µV
Selectivity:
SSB, CW: 2.4 kHz/-6 dB, 4.5 kHz/-60 dB
AM Narrow: 2.4 kHz/-6 dB, 4.5 kHz/-60 dB
AM, FM: 6 kHz/-6 dB, 18 kHz/-50 dB
Intermediate Freqs: 1st IF: 71.75 MHz
2nd IF: 455 kHz
Image rejection: More than 70dB
Audio Output: >2 Watts @8 ohms, 10% THD.

PYRAMID

PS-8KX



The **Pyramid PS-4KX** regulated linear power supply provides 13.8 VDC at 6 Amps continuous, 8 Amps surge. 5 x 3 x 7.5".

List $85.00 *Order #5366* **$44.95**

RFspace CloudIQ

The **RFspace CloudIQ™** offers two modes of operation. The IQ mode, offers 24 bit, IQ streaming to the PC over Ethernet. This mode uses the *SpectraVue* software or third party programs like *SDR-Radio, SDR#* and *GNU* radio. The standalone "Cloud" mode includes a built-in Internet server. In this mode, the radio performs the tuning and demodulation of signals and transmits the demodulated information back to a PC, OS-X, Linux or Android client anywhere in the world. Improvements over the SDR-IQ: 1.8 MHz IQ sample rate vs. 196 kHz, Ethernet interface vs. USB for placement far from computer, Sensitivity is over 15 dB better, broader frequency coverage of 9 kHz to 56 MHz, low bandwidth cloud mode for access anywhere in the world, powered by power supply or USB, Internal adjustable trigger for capture of repetitive signals (pulsars, CODAR, chirps), two SMA input ports for remote or local selection of two antennas, HD2, HD3 products better than -90dBc at -1dB below clipping point, 56 MHz wide spectrum analyzer mode, 10x faster interface, optional RS-232 3.5mm to DB9 cable for external radio control and built-in TCXO. With: USB power cable, USB power supply, Ethernet cable, *SpectraVue* software CD with *SDRanywhere* application for Android, PC and Mac OS.

CloudIQ *Order #0290* **$619.95**

RFspace NetSDR+

The **RFspace NetSDR+** follows on the success of the NetSDR, adding new capabilities and dramatically expanded spectrum coverage tuning 9 kHz to 32 MHz (and 40 to 700 MHz with down-converter option). This high performance networked SDR features a 2.0 MHz output sample rate. It utilizes 4th generation technology using a high performance 80 MHz, 16 bit ADC with both dithering and randomization for superior performance. The output I/Q bandwidth is configurable via software. PC communications are handled over a 100 base-T port using 24 or 16 bit I/Q words. The NetSDR+ packets are fully routable so the receiver can be placed at remote locations. Multiple receivers can also be combined and it's data transported over a higher data rate ethernet pipe using simple switches and routers. In this application, each NetSDR+ can be set to a different IP address or port. The NetSDR+ is compatible with the SpectraVue, SDR-Radio, SDR#, GNURadio and other software that will have you up and running in minutes. The software includes analog and digital mode demodulation and I/Q capture of spectrum at up to a 1.60 MHz BW. RFSPACE now includes a low bandwidth Windows server application to remote the NetSDR+ from a Windows, Mac or Android client. The waterfall and demodulation audio can be transported via a low bandwidth internet link. For those interested in writing their own applications, RFSPACE supplies a fully documented protocol for communicating with the hardware. There is no need to calculate the down-converter DSP parameters. The NetSDR+ just needs the center frequency, attenuator and preselector filter settings, output sample rate and mode to begin streaming data. Other solutions require complicated USB interfacing that is platform specific. The NetSDR+ utilizes straight TCP/IP and ethernet for all communications to offer the highest possible performance due to the highly optimized ethernet drivers on PC, Mac and Linux systems. The NetSDR+ is a complete plug and play solution and there is no need for additional preamplifiers, preselectors or code development.

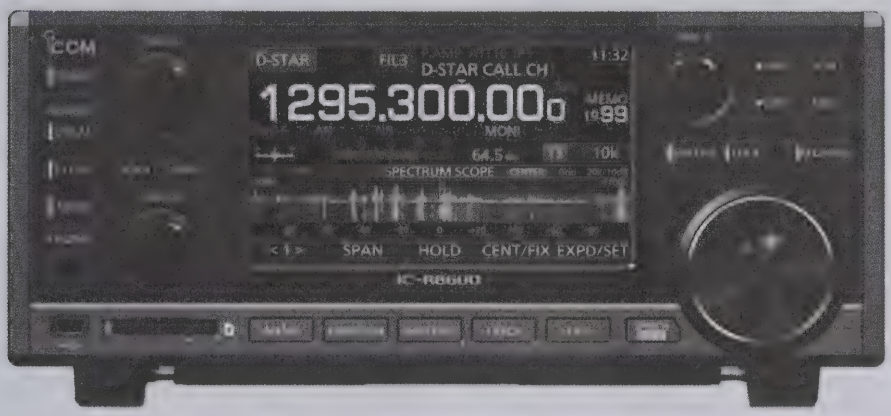
NetSDR+ *Order #6602* **$1349.95**

CLASSIC RADIOS

Are you looking for an older "classic" shortwave radio? The **Used Department** at Universal Radio contains an ever changing assortment of used amateur and shortwave radio equipment. Please visit our website to review our current offerings with photos for many key items. Our ***Radio Archive*** section includes an informative presentation of recently sold radios with values, specifications and photos. It's like a radio museum!

ICOM

IC-R8600



The **Icom IC-R8600** wideband communications receiver raises the bar on sophisticated radio monitoring. The IC-R8600 covers 10 kHz to 3000 MHz (less cellular) in analog and decodes multiple digital protocols, including Baudot RTTY, D-STAR™, NXDN™, dPMR™ and APCO P25. It has a large 4.3 inch color TFT touch screen display with fast spectrum scope and waterfall display. The advanced circuit employs modern FPGA/DSP base architecture with traditional superheterodyne circuitry. Superb receive performance is achieved by 11 discrete RF bandpass filters in the HF bands and 13 bandpass filters in the VHF/UHF bands. 2000 memories (in 100 groups) store frequency, mode, tone, step, etc. Optional RS-R8600 PC remote control software allows control of all receiver functions. There is a convenient SD card slot for the received log, decode log and voice recording. Other refinements include: Sleep timer function (5 to 120 min.), Attenuator, Center tune indicator (FM/WFM/each digital mode), Digital AFC, Tone control (HPF/LPF, BASS/TREBLE, De-Emphasis), Noise Blanker, Speech function (Japanese/English), Dial tension adjust, Auto TS function, Main dial & panel lock functions, S-AM (AM sync. det.) and multiple digital squelch settings. Optional RS-R8600 PC remote control software allows control of all receiver functions. There is a convenient SD card slot for received log, decode log and voice recording. The rear panel features: 10.7 MHz IF Output, LAN Port, Mute Line, Reference I/O, I/Q output, External speaker jack, AF/IF output, CI-V, USB port, DC power jack, S meter output, Aux., 3 antenna jacks (N/SO239/RCA) and ground terminal. The I/Q signal output supports use with third-party SDR software and/or external decoding. This device requires a 13.8 VDC 2 Amp regulated, filtered power supply or Icom SP-39AD speaker / power supply (both sold separately).

R8600-04 Full coverage govt. / export version.
List $3000.00 *Order #0586* **Call**

R8600-02 Consumer version.
List $3000.00 *Order #0086* **Call**

SPECIFICATIONS

Frequency Range	10 kHz - 3000 MHz Less 822-851, 867-896 in -02
Modes	SSB/CW/AM/FM/WFM FSK/D-STAR/P25/NXDN dPMR/DCR
Power	13.8 VDC ±15% 2A Neg
Memories	2000 (100 groups) plus: 100 scan edges 200 auto memory 100 scan skip
Antenna Inputs	N 10kHz-3000 MHz SO-239 10kHz-30 MHz RCA 10kHz-30 MHz 500 Ohm
Stability	< ±0.5 PPM
Operating Temp.	14° F to 140° F
Freq. Resolution	1 Hz min.
Receive Systems	10 kHz-30 MHz — Direct Sampling 30-1100 MHz — Double Superheterodyne 1100-3000 MHz — Triple Superheterodyne
Selectivity SSB	3/2.4/1.8 kHz and 50 Hz-3.6 kHz variable
CW	1.2/0.5/0.25 kHz and 50 Hz-3.6 kHz variable
FSK	2.4/0.5/0.25 kHz and 50 Hz-2.7 kHz variable
AM	9/6/3 kHz plus 2000 Hz-10 kHz variable
FM	50/15/7 kHz
WFM	200 kHz
D-STAR	15/10/7 kHz
P25	15/10/7 kHz
NXDN-N	15/10/7 kHz
dPMR	10/7/5 kHz
Sensitivity SSB/CW[1]	0.1-18 MHz -6 dBμV 1.8-30 MHz -14 dBμV 30-2000 MHz -10 dBμV 2000-3000 MHz -8 dBμV
Audio Output	2 Watts 8 Ohms.
Dimensions	8.7 x 3.5 x 9.1 inches (220x90x230 mm)
Weight	9.5 lbs. (4.3 kg)

[1]Preamp on 10 dB S/N

ICOM

IC-R6 *Sport*-16

The compact **Icom IC-R6 *Sport*-16** is big on coverage, tuning 100 kHz-824 MHz, 851-866.995 and 896-1309.995 MHz in AM, FM Narrow and FM wide modes. The triple conversion superheterodyne circuit provides good sensitivity. It has 1300 alphanumeric memories storing: frequency, mode, step size, duplex direction and offset, CTCSS tone, tone squelch and skip settings. And it can scan up to 100 channels/steps per second in 7 different scan modes. Frequency steps include: 5, 6.25, 9, 10,12.5, 15, 20, 25, 30, 50, 100 or 200 kHz. It features a large backlit LCD . Audio Output is 150 mW 8. There is a mini earphone jack. The IC-R6 *Sport* comes with wrist strap, belt clip and SMA flexible antenna. Please note that the AC adapter and NiMH AA batteries are *not* included in this current version. This radio requires two AA batteries. 2.3 x 3.4 x 1.2" 7.1 oz. Black.
List $225.00 *Order #2006* **Please Call**

The **IC-R6**-E model is the same as the R6 *Sport*-16, but *without* the cellular gaps. It can be purchased by the Federal government or for export *only*.
List $225.00 *Order #6713* **$199.95**

IC-R6 OPTIONS

#	Item	Description	Price
5435	**BC-194**	Charge adapter stand	**29.95**
3208	**BC-196SA**	AC Adapter	**26.95**
5436	**CSR6**	Win Clone Software CD	**42.95**
0498	**CP-18A**	Cigarette Plug & Filter	**29.95**
2771	**CT-17**	Level Converter	**144.95**
0967	**LC-146A**	Carry Case	**21.95**
0918	**OPC-474**	R6 to R6 Clone Ser.Cbl.	**16.95**
1180	**OPC-478**	R6 to PC Clone Ser.Cbl.	**44.95**
4886	**OPC-478UC**	R6 to PC Clone USB C.	**52.95**
6364	**SP AT1**	Mono Earphone	**24.95**
3209	**SP-27**	Tube Earphone	**26.95**
0531	**SMA-BNC**	Converts BNC to SMA	**4.99**
5642	**ARC6**	Butel prgm software CD	**29.95**

SP39AD

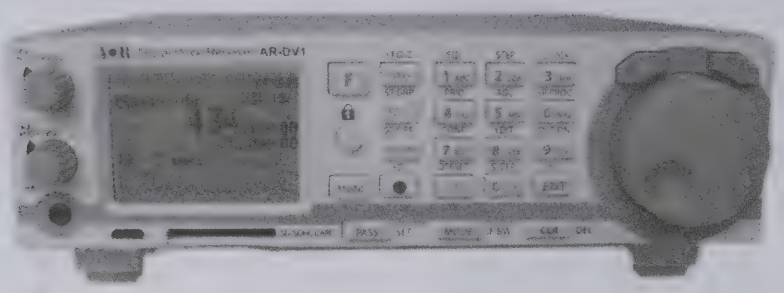
IC-R8600 OPTIONS

#	Model	Description	Price
6685	**AD-55NS**	AC Power Supply	**$59.95**
1945	**AH8000**	VHF-UHF Antenna	**269.95**
2529	**CS-R8600**	Programming CD	**79.95**
5480	**MB-123**	Carry Handle	**28.95**
6728	**RS-R8600**	Remote Control CD	**159.95**
5885	**RC-28**	Remote Encoder[2]	**259.95**
2039	**SP39AD**	Speaker & AC power	**249.95**
5041	**SP41**	Speaker with filters	**229.95**

[1]Requires RS-R8600

Please see page 15 for the **Icom IC-R30**

AR-DV1B



The **AOR AR-DV1B** wideband communications receiver covers 100 kHz to 1300 MHz (less cellular on U.S. consumer version) in traditional analog modes (LSB, USB, CW, AM, FM, S-FM, W-FM) as well as various digital modes. In fact, we know of no other radio in this category that can decode Icom's D-Star™ (Narrow Band only, no data), Yaesu's new *Fusion*™ C4FM (V/D mode only), Alinco (GMSK), NXDN™ (C4FM), P25 Phase1 (C4FM), DMR™ (4SK, 2X-TDMA Tier 1 & 2). Features include: 2000 Memories (40x50), Memory Scan, AM Synchronous Detection, Noise Reduction, Notch, Digital Data Display, Clock, Calendar, Alarm and Timer. The SD/SDHC jack supports logging functions. There is also a micro USB port. This radio will support field firmware updating. High performance is achieved with direct conversion below 18 MHz and triple conversion superheterodyne above 18 MHz. The crisp amber-orange display is backlit. The rear panel features a single BNC antenna jack, speaker jack, aux. jack and 12 VDC input jack. Please note that AOR receivers, including the AR-DV1, do *not* support trunk-tracking. The AR-DV1B comes with a BNC telescopic antenna, 4 or 8 Gb SD card and well filtered, linear AA8600UL DC power supply (12 VDC 800 mA [+]).
7.1 x 2 x 8.5" 3.5 lbs.
List $1299.00 *Order #6369* **Please Call**

The **AOR AR-DV1U** model is the same as above, but without the 824-849 / 869-894 MHz cellular gap and can be purchased via government or qualifying commercial purchase order or for export only.
List $1299.00 *Order #6452* **Please Call**

SPECIFICATIONS

Frequency Range	100 kHz - 1300 MHz (Less cellular in AR-DV1B)
Power	10.8-16 VDC 800mA
Antenna Input	BNC 50 ohm
Selectivity (-6dB)	0.2, 0.5, 1.8, 2.6, 3.8, 5.5, 6, 8, 15, 30, 100 and 200 kHz mode dependent.
Sensitivity	0.71 µV 0.5-18 MHz 0.32 µV 18-1300 MHz (12 dB SINAD)
Squelch Modes	Level, Noise, Voice, Tone and DCS.
Stability	±2.5 PM after 5 mins.
Memories	2000 in 40 banks
Pass Frequencies	50 per bank or VFO
Search Banks	40
VFOs	3
Audio Outputs	Internal speaker, ext. speaker , 3.5mm head, and FM Discriminator
Circuit Type.	0.1-18 MHz Direct Conv. 18-180 MHz Double Conversion Superhet IFs=393, 31 MHz. 180-1300 MHz Triple Conversion Superhet IFs=1705, 393, 31 MHz.
Audio Output	1 Watt 8 Ohms.
Dimensions	7.1 x 2 x 8.5 inches (178x50x215 mm)
Weight	3.5 lbs. (1.5 kg)

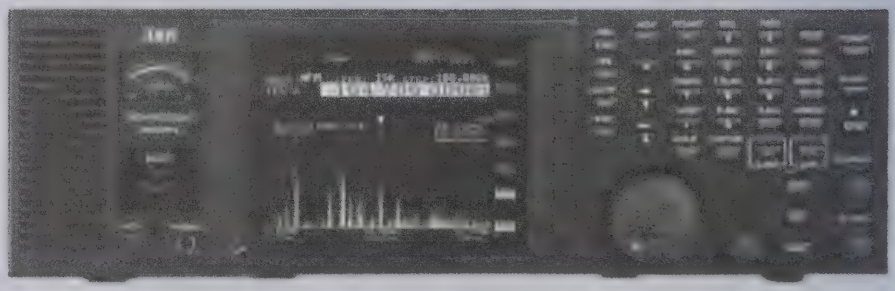
SR2200

The **AOR SR2200** is a DSP powered VHF/UHF receiver unit covering from 25 MHz to 3 GHz with triple conversion superheterodyne in AM, NFM, WFM and SFM modes. Thanks to a well designed RFU, the generated IF signal of 10.7 MHz is of high linearity. Moreover, the demodulated signal is amplified to a high-definition audio (AF) signal, which can be output to an external speaker (not supplied) for superb sound. There are 1000 memories in ten banks. The rear panel features both an RS-232 port and a USB port. The 8 conductor Accessory Output jack contains: Discriminator Out 5VDC @30mA Max., AF out 120mV 600 ohms, AF out 60mV 600 ohms and 5VDC @30mA Max and ground. The supplied SR2200 CD includes the manual, simple control software and drivers. 8 x 1.2 x 9 in. 4 lbs. This device requires 12 VDC at 500 mA. DC cord included. The AA7000 AC adapter is available as an option. The special order SR2200 can be purchased for government or for export *only*.
List $1899.00 *Order #0156* **$1599.95**

ACCESSORIES

#3302 **AA7000-1** AC Adapter 120VAC **$79.95**

AR-ALPHA
AR-ALPHA II



The **AOR AR-Alpha** takes professional monitoring to a new level. It is designed to meet the increasingly complex needs of monitoring professionals. Continuous coverage from 10 kHz to 3.3 GHz. Digital signal processing is employed at both the IF stage and demodulating stage. Fast frequency processing is achieved by means of FFT. Dual communications ports on the back panel support both RS-232C and USB connection. Modes include: WFM, NFM, AM (Synchronous AM, diversity synchronous AM), ISB, RZSSB, USB, LSB, CW, P25, TV (FM, AM NTSC/PAL). A wide range of IF filters are available: 200 Hz, 500 Hz, 3 kHz, 6 kHz, 15 kHz, 30 kHz, 100 kHz, 200 kHz, 300 kHz. The AGC may be set for FAST, MEDIUM, SLOW and OFF. A 6 inch diagonal high resolution TFT color display supports spectral display (with water fall) as well as non-broadcast video reception. Requires 13.8VDC at 2.5 amps. The back panel has two antenna inputs: ANT 1 (N), ANT 2 (SO239). There is a 10.7 MHz (BNC) output jack. Other jacks include: AF Out Right and Left (RCA), Mute (RCA), External Speaker and Accs. 2. Includes rack ears for mounting the radio in a standard 19 inch rack.

The announced **AR-Alpha II** will add ten new digital modes: APCO P-25 (Phase I & II), D-CR, DMR, Mototrbo, dPMR, NXDN, TETRA, Alinco EJ-47 GMSK, D-STAR and Yaesu FUSION. A new *DALL* function automatically determines the digital mode. Amazingly, it supports stand-alone I/Q recording and playback! No computer required!

This device has not been approved by the F.C.C.
This device may not be offered for sale or lease or be sold or leased until approval of the F.C.C. has been obtained.

AR8200MkIIIB

- 500 kHz - 3000 MHz (less cellular)
- All Mode
- 1000 Memories
- 12 Characters per Memory
- 20 Search Banks
- Priority Channel
- Dual VFOs
- Thumbwheel Tuning Dial
- Programmable Step Sizes
- Signal Strength Meter
- Band Scope
- Backlit LCD & Keypad
- Battery Save Function
- Attenuator
- True Carrier Insertion SSB
- Removable MW Antenna
- Optional Slot-Cards
- Computer Control Port
- 12 VDC Input Jack

The **AOR AR8200Mark IIIB** is an improved handheld receiver that covers 500 kHz to 3000 MHz (less cellular) in: Wide FM, Narrow FM, Super Narrow FM, Wide AM, Standard AM, Narrow AM, USB, LSB and CW. Bandwidths are: FM-W 150 kHz, FM-N/AM-W 12 kHz, AM/FM-S 9 kHz and AM-N/SSB 3 kHz (-6 dB). The side keypad has 4 arrow keys presented as a single rocker. 1000 Alpha memories in 20 banks are supplied. The scan-search rate is 37 steps/second. The state-of-the-art AR8200 even accepts plug-in slot card options (see below). This may be the best engineered and most capable handheld scanner ever! Now with TCXO, 8.33 kHz air-band step and more. Includes: Four NiMH 1500 mAh AA cells, AC charger, belt-clip, auto cigarette lighter power cord, removable medium wave (AM) antenna and RA8600 Telescopic Whip antenna. This radio may also be operated from a 12 VDC external source. There is a 1/8 inch (3.5mm) mini earphone jack on the right side. 2.4 x 6 x 1.5 inches.

List $909.00 *Order #0083* **$719.95**

OPTIONAL SLOT CARDS

#1641	**CT8200**	CTCSS Squelch	**$119.95**
#1829	**EM8200**	External Memory	**99.95**
#0000	**RU8200**	IC Sound Recorder	Disc.
#1412	**TE8200**	Tone Eliminator	**74.95**
#0422	**VI8200**	Voice Inversion	**104.95**

Please note that the VI8200 is *only* available to export or government customers.

OPTIONS

#4755	**CC8200A**	Serial PC Cable[1]	**$104.95**
#3462	**CC8200B**	Serial PC Cable[2]	Disc.
#3805	**CR8200**	Record Cable[1]	**49.98**
#2207	**CR8200A**	Record Cable[2]	**73.95**
#3802	**IF8200**	Interface Cable (no plug)	**28.95**
#0000	**LC8200**	Leather Case	Disc.
#3807	**SC8200P**	Vinyl Case	**16.95**
#4931	**USB8200**	PC USB Cable[1]	**90.95**
#2824	**USB8200A**	PC USB Cable[2]	**92.95**

[1]For B s/n <554251 [2]For B s/n >554251

AR8600MkIIB

SPECIFICATIONS

Frequency Range	530 kHz - 3000 MHz (less cellular).
Modes	WFM, NFM, SFM, WAM, AM, NAM, USB, LSB, CW.
Power	13.8 VDC 0.5 Amps
Antenna Impedance	50 ohm unbalanced
Selectivity (-6dB)	3/9/12/20/25/150/380 kHz
Sensitivity	2µV 1.9-30 MHz AM
Memories	1000 (20 banks)
Physical	6.1 x 2.25 x 7.7" 4.5 lbs.

The **AOR AR8600Mark IIB** is a versatile receiver which can be used virtually anywhere, mobile, base or transportable ... powered from an external 12 VDC power supply, optional d.c. lead from a 12V vehicle or from an optional internally fitted NiCad battery pack. A strong twin metal case with die cast front panel characterizes the multipurpose role. All mode receive capability is provided including Single Side Band with programmable tuning steps down to a resolution of 50 Hz with the frequency established by a highly accurate TCXO. Center stage is a custom multi-section backlit LCD, numeric keypad, navigation keys, rotary tuning control and separate controls for volume and squelch control. The LCD can display alphanumeric text comments. The radio is manufactured with a metal chassis inside a metal cabinet to provide excellent screening characteristics and great robustness. The front panel is also manufactured from die-cast aluminium. Step may be programmed by the operator in any receive mode using multiples of 50 Hz (i.e. 5 kHz, 12.5 kHz or even 1.25 kHz). Extensive step-adjust and frequency offset facilities are also provided to ensure tracking of the most obscure band plans. A wide frequency coverage is available from 530 kHz to 3000 MHz (less cellular) with actual minimum acceptable frequency of 100 kHz. All mode receive: WFM, NFM, SFM (Super Narrow FM), WAM, AM, NAM (Wide, standard, Narrow AM), USB, LSB and CW. A 3.0 kHz SSB filter is employed with true carrier reinsertion resulting in non-offset frequency readout for easy tuning of SSB transmissions. An attenuator and noise limiter are also featured. Computer control is available via a 9-pin RS232 serial port. Free software is available as a download from the AOR web site. The AR8600 comes with an AC power supply, RA8600 telescopic antenna, medium wave plug-in antenna and manual.

List $1049.00 **AR8600MkIIB** *Order #1860* **$969.95**

NOTE: Full coverage, unblocked versions of AOR models are available for export or gov't. customers.

ARDV10

The **AOR AR-DV10B** wideband receiver covers 100 kHz to 1300 MHz (less cellular) in traditional analog modes (SSB, CW, AM, SAM, FM) as well as various digital modes including: APCO P-25 (Phase I & II), D-CR, DMR, Mototrbo, dPMR, NXDN, TETRA, Alinco EJ-47 GMSK, D-STAR and Yaesu FUSION. A new *DALL* function *automatically* determines the digital mode. Three VFOs are available (A/B/Z). Supported bandwidths include FM 6/15/30/100 kHz, AM 3.8/5.5/15 kHz, SSB 1.8/2.6 kHz and CW 200/500 Hz. Stability is ±5 ppm It meets IPX5 environmental standards and has a MicroSD card-slot that supports audio recording. It is supplied with Li-ion battery, charger, BNC antenna and belt clip.

Order #0410 **T.B.A.**

The unblocked **AOR AR-DV10U** can be purchased via government or qualifying commercial purchase order or for export only.

Order #0433 **T.B.A.**

ACCESSORIES

#4755	**AA10**	AC Adapter	**T.B.A.**
#3655	**BC10**	Belt Clip	**T.B.A.**
#2227	**BP10**	Battery 7V 2000mAh	**T.B.A.**
#6476	**BT10**	Battery Tray	**T.B.A.**
#6763	**CC10**	Charge Cradle	**T.B.A.**
#3127	**DC10**	DC Cigar Plug Cord	**T.B.A.**
#4144	**RA10**	Replacement Antenna	**T.B.A.**
#2616	**MA500**	Mob. Mag. Ant. (p. 35)	**$129.95**
#3755	**SA7000**	Base Vert. Ant. (p. 34)	**$289.95**

This device has not been approved by the F.C.C.
This device may not be offered for sale or lease or be sold or leased until approval of the F.C.C. has been obtained.

ACCESSORIES

#0495	**P25-8600**	APCO25 Decoder	**$249.95**
#1316	**BP8600**	NiCad Battery Pack	Disc.
#1584	**DC8600**	DC Cord	**12.95**

OPTIONAL SLOT CARDS

#1641	**CT8200**	CTCSS Squelch	**$119.95**
#1412	**TE8200**	Tone Eliminator	**74.95**
#0000	**RU8200**	IC Sound Recorder	Discontinued
#1829	**EM8200**	External Memory	**99.95**
#0422	**VI8200**	Voice Inversion	**104.95**

Please note that the VI8200 is *only* available to export or government customers.

AR5001DB

The **AOR AR5001DB** wideband communications receiver covers 40 kHz to 3150 MHz (less cellular) in: USB, LSB, CW, Wide FM, Narrow FM, AM and AM Synchronous modes. APCO P-25 mode is available optionally. 2000 Alpha memories store frequency, mode, step, de-emphasis, AGC mode, CTCSS, DCS, auto notch, antenna port and attenuator settings. Bandwidths are: 200 Hz, 500 Hz, 3 kHz, 6 kHz, 15 kHz, 30 kHz, 100 kHz, 200 kHz and 300 kHz (-3 dB). There are two dual frequency modes. In the dual offset mode you can listen to two frequencies in the same band (± 5 MHz). In the regular dual frequency mode you can listen to a VHF/UHF frequency and an HF frequency, even if different modes. The special tri-frequency mode allows HF reception combined with the dual offset mode! This radio features five VFOs, DTMF tone decode, CW pitch control, Auto notch, noise reduction, noise blanker, keypad entry, a precision signal meter and SD card port. It also has a high resolution spectrum display function. The AR5001D comes with a well filtered DC supply, manual and SD card. 8.66 x 3.825 x 12 inches 11.1 lbs.

Order	Model	Frequency Coverage	List Price	Your Price
#5001	**AR5001DB**	40 kHz to 3.15 GHz (less cellular)	$4799.00	**$4399.95**
#2682	**AR5001DU**	40 kHz to 3.15 GHz ***Restricted***	$4799.00	**$4449.95**

The restricted model **AR5001DU** is available for government or export only. Universal Radio does accept government purchase orders. Please call and ask for *Government Sales.*

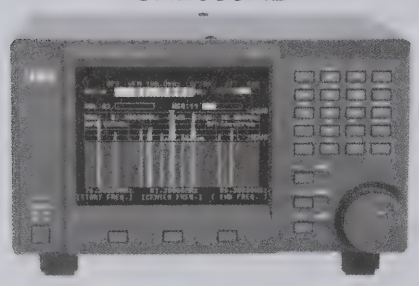
ACCESSORIES

#5449	**P25-2300**	APCO25 Decoder	**$249.95**
#4815	**IQ5001**	I/Q Unit & Software	**$699.95**
#1213	**GP5001**	GPS Freq. Ref. Unit	**$429.95**
#1934	**ARL2300**	IP Control Unit	**$849.95**
#2343	**AS5001**	Antenna Switch	**$177.95**

AR6000

The new **AR6000** receiver is similar to the AR5001DU, but tunes up to 6000 MHz. See the Universal website for details. This model can be purchased for government or for export *only.*
List $7599.00 *Order #6045* **Please call**

SR2000AB



The **AOR SR2000AB** is a DSP powered spectrum display unit with high quality RF front-end, for professional users. The IF signal originating from the RF's front end is digitally processed, analyzed by high-speed Fast Fourier Transform, to allow a 40 MHz wide bandwidth spectrum to be displayed in real time. The FFT search can scan 10 MHz in as little at 0.2 seconds to instantly display transmitted signals. The RF front end covers a wide range from 25 MHz to 3 GHz (less cellular) with triple conversion superheterodyne in AM, NFM, WFM and SFM modes. This receiver can additionally receive and display video (NTSC/PAL/SECAM). Other features include: 1000 memories (10x100), 40 search bank memories, menu-driven operation plus RS-232 and USB ports.
SR2000AB *Order #5085* **$3099.95**

The full coverage, unblocked version can be purchased for government or for export *only.*
SR2000AU *Order #2627* **$3069.95**

ACCESSORIES

#5161	**P25-2000**	APCO25 Decoder	**$249.95**
#0000	**CR5000**	Tape recorder cable	Disc.

AS5001

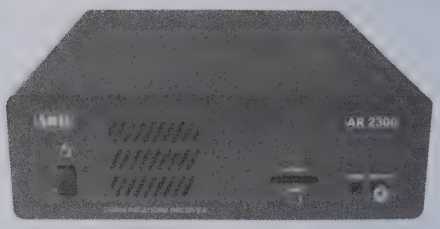
The **AOR AS5001** antenna selector is designed for use exclusively with the AR5000, AR5001 and AR-ALPHA series receivers. With the AS5001 attached, ANT1, ANT3 and ANT4 each goes through the ANT1 socket. The ANT2 socket is not affected and a shortwave antenna must be connected to the ANT2 socket. Connectors are N type and this device is powered by the receiver.
List $179.95 *Order #2343* **$177.95**

ARL2300

The **AOR ARL-2300** External IP Control Unit is an Ethernet network interface that permits the connection of the AR2300 or AR5001D directly to a computer network. It can subsequently then be connected to the Internet if desired. Basic control of the radio over the network is supported. All five VFOs may be controlled and spectrum display is available. Your mode, bandwidth, attenuator, step size and antenna selection can be viewed and controlled.
List $935.00 *Order #1934* **$849.95**

Although the SR2000A and SR2200 are listed in the *Wideband Receiver* section of this catalog, please note that they do *not* cover shortwave.

AR2300B



The **AOR AR2300B** is a wideband black box receiver that covers 40 kHz to 3150 MHz (less cellular) in: USB, LSB, CW, Wide FM, Narrow FM and AM modes. APCO P-25 mode is available optionally. 2000 Alpha memories store frequency, mode, antenna port and attenuator settings. Bandwidths are: CW 500 Hz, SSB 3 kHz, AM 6 kHz, FM 15 kHz, FM-Wide 200 kHz (-3 dB). The supplied AR2300 Windows® software provides powerful control functions. The AR2300 can be controlled from today's netbook PCs.
List $4119.00 *Order #2300* **Please call**

The **AR2300U**, unblocked version can be purchased for government or for export *only.*
List $4119.00 *Order #2302* **Please call**

ACCESSORIES

#5449	**P25-2300**	APCO25 Decoder	**$249.95**
#4815	**IQ5001**	I/Q Unit & Software	**$699.95**
#1213	**GP5001**	GPS Freq. Unit	**$429.95**
#1934	**ARL2300**	Ext. IP Control Unit	**$849.95**

AR-Mini

The **AOR AR-Mini B** handheld radio covers 100 kHz to 1300 MHz (less cellular) in: Wide FM, Narrow FM and AM modes. Key features include: 1000 memories in 10 banks, CTCSS/DCS decode, water resistant [JIS4], two VFOs, high stability TCXO, ferrite bar (100-5000 kHz), RF attenuator, battery saver and backlit LCD with S-meter. Comes with: two NiMH AA cells, AA-Mini AC adapter, SMA flexible antenna, belt clip, hand strap and manual. 2.4 x 3.7 x 0.9 inches 7.4 oz.
AR-Mini B *Order #0202* **$159.95**

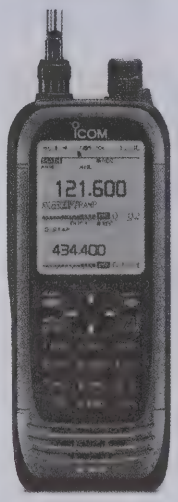
OPTIONS

#	Model	Item Description	Price
0231	**CO-Mini**	Radio Clone Cable	**$8.98**
0225	**DC-Mini**	DC Cable Adapter	**22.98**
0000	**SC-Mini**	Carrying Case	Disc.

UNIVERSAL BUYS RADIOS

If you have radio equipment you are not using, why not turn it into cash? Universal will purchase good clean used equipment. Please call, email or write and tell us what you have to sell. We can provide an immediate quote (subject to inspection).

ICOM IC-R30



Tune in the world where ever you go. The **Icom IC-R30-06** will cover 100 kHz to 3304.999 MHz (less cellular). Expected reception modes include: FM, WFM, AM, USB, LSB, CW, D-STAR®, APCO P25 Phase 1, NXDN®, dPMR® and DCR. It is expected to include 2000 memories, scanning at 200 channels/second, NB, RF Gain, voice synthesizer, Bluetooth®, GPS, spectrum display and dual receive including analog/analog and analog/digital. It even supports dual record. The radio has a microSD card port and microUSB port. It is built to robust IP57 [MIL-STD-810G] standards. The optional CS-R30 software operates with Windows 10, 8.1, and 7.

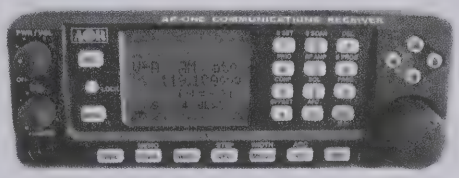
Order #1030 **T.B.A.**

OPTIONS

#	Item	Description	Price
1449	**BC-223**	Drop-in charger	**T.B.A.**
6851	**BP-287**	3.7V 3280 mAh	**T.B.A.**
1211	**BP-293**	Battery Case	**T.B.A.**
1352	**CS-R30**	Software	**T.B.A.**
4415	**LC-189**	Carry Case	**T.B.A.**
1388	**MB-133**	Belt Clip	**T.B.A.**
1394	**SP-40**	Earphone	**T.B.A.**

This device has not been approved by the F.C.C. This device may not be offered for sale or lease or be sold or leased until approval of the F.C.C. has been obtained.
The information shown is preliminary and subject to change.

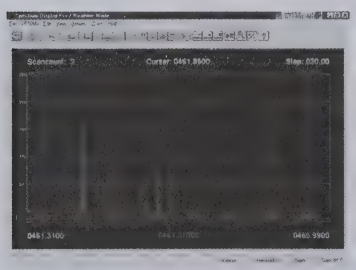
AOR AR-ONE



The **AOR AR-ONE** is a professional, government wideband communications receiver covering 10 kHz to 3.3 GHz in AM, FM, NFM, WFM, LSB, USB, CW modes with a 1 Hz frequency display. It is optimized for surveillance and monitoring applications. Advanced features include: ten VFOs and 1000 memories, attenuator and preamp. Scan and search with pass and delay are fully supported. See our website for full details. For govt.or for export *only*.

AR-ONE *Order #4560* **$5399.95**

BUTEL SOFTWARE



The sophisticated Butel software supports memory/search banks and auto-mode bandplan. Includes a professional spectrum analyzer application and other useful tools. Requires: Windows (see our website for current version requirement), 2MB Video, HDspace, CD Drive, COM Port [USB not supported in all versions].

#	Item	For Radio	Price
2721	**ARC 3**	Icom R3	**$19.98**
5642	**ARC 6**	Icom R6	**29.95**
4963	**ARC 15BA**	Bearcat BCT15	**31.98**
1256	**ARC 250BA**	Bearcat BC250/796	**29.98**
0832	**ARC 300**	GRE PSR300/400	**24.98**
5098	**ARC 500**[1]	GRE PSR500/600	**39.95**
6205	**ARC 8200V2**	AOR AR8200/8600	**39.95**
3882	**ARC DV1 BA**	AOR ARDV1	**39.95**
5336	**ARC XT BA**	BC346XT/396XT/396XT	**39.95**
5645	**ARC PATROL**	Homepatrol-1 & II	**29.95**

[1]**Special Note:** The ARC500 will also work the Whistler WS1040/WS1065 scanners.

ALINCO DJ-X11T

The **Alinco DJ-X11T** wideband receiver covers 50 kHz to 1299.995 MHz (less cellular) in AM, FM wide, FM narrow, SSB and CW modes. The illuminated LCD display supports two lines. In addition to frequency information, it will also show the operating mode, memory channel, battery strength, signal strength and a number of other user-selected operating parameters. The keypad is backlit. Six types of memory banks are supported. The DJ-X11T even supports simultaneous dual frequency reception giving you the ability to concurrently listen with the main band and sub band (with some frequency limitations). Please note that sub band coverage is 118-174 MHz and 336-470 MHz. The F tuning function allows you to automatically tune very strong, nearby signals. The built in MW ferrite bar antenna provides good AM band reception. The DJ-X11T features 1200 memory channels and three scan speeds are available. The supplied SMA antenna is removable. Other features include: Beep On/Off, ext DC input jack (6VDC) and battery-low icon. This radio's firmware may be updated over the web (with optional cable and software). This radio comes with the EBP-174 3.7V lithium ion battery, AC adapter, SMA flexible antenna, belt clip and hand strap. 2.4 x 4.17 x 1.5 inches 8.3 oz.

List $399.00 *Order #4011* **Call or view website**

OPTIONS

#	Item	Description	Price
1620	**EBP-74**	Li-ion 3.7V 600 mAh	**$44.95**
4697	**EDH-33**	Cigar Filter Cord	**17.95**
4183	**EDS-12**	Wired Remote	**29.95**
1477	**ERW-4C**	PC Interface Cable RS232	**37.98**
1695	**ERW-7**	PC Interface Cable USB	**45.95**
2535	**ERW-8**	PC Intf. Cable USB mini	**44.95**
1309	**ESC-50**	Carry Case	**24.95**

VIEW OPTIONS
To view a photo of each Alinco option, please visit the Universal Radio website.

GOVT. - EXPORT
Contact Universal for information on Alinco radios for government or export applications.

ALINCO DJ-X7T

The **Alinco DJ-X7T** covers 100 kHz to 1299.995 MHz (less cellular) in AM, FM wide and FM narrow modes. The illuminated LCD display is easy to read and also shows the operating mode and memory channel. The DJ-X7T features 1000 memory channels and can clone to other DJ-X7 units with optional cable. This radio has four user-selectable antenna choices: an internal AM bar antenna, an internal SW bar antenna, the earphone cable may be used as antenna or the external, supplied SMA whip antenna terminal may be activated. Each DJ-X7T comes standard with: EDC-126 AC charger adapter, EBP-58N Lithium-ion battery, removable EA-131 SMA flexible antenna, antenna cap and EME-25 curl-cable earphone. 2.4 x 4 x 0.7 inches 3.7 oz.

List $199.95 *Order #3077* **$119.98**

OPTIONS

#	Item	Description	Price
2086	**EBP-58N**	Li-Ion 3.7V 600 mAh	**$31.95**
2216	**EDH-32**	Cigar Filter Cord	**16.95**
2259	**ESC-38**	Carry Case	**14.95**
1477	**ERW-4C**	PC Serial Cable	**37.98**
0531	**SMA-BNC**	SMA to BNC Adapter	**4.99**
4526	**2.5S-3.5S**	2.5mm-3.5mm Adapter	**2.69**

VIEW OPTIONS
To view a photo of each Alinco option, please visit the Universal Radio website.

GOVT. - EXPORT
Contact Universal for information on Alinco radios for government or export applications.

uniden

Bearcat

BC125AT

- 29 - 30 Ham Band 10 M
- 30 - 50 VHF Low
- 50 - 54 Ham Band 6 M
- 108-137 Aircraft
- 137-144 Federal Gov't
- 144-148 Ham Band 2 M
- 148-174 VHF High Band
- 225-380 Mil. Aircraft
- 400-420 Federal Gov't
- 420-450 Ham Band 70 Cm
- 450-470 UHF Band
- 470-512 UHF "T" Band

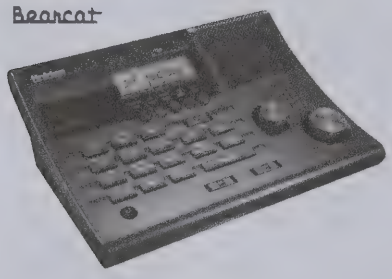
The **Bearcat BC125AT** is an affordable 500 channel, ten bank scanner with great features. Frequency coverage is 25-54,108-174,225-380, and 400-512 MHz. It has Uniden's new Close Call™ RF Capture Technology that instantly tunes to signals from nearby transmitters. The Priority Scan function scans the channels you have designated as priority channels. The Delay function helps prevent missed replies during 2-way conversations. There are ten service banks with preset frequencies for: Police, Fire/Emergency, Ham, Marine, Railroad, Civil Air, Military Air, CB Radio, FRS/GMRS/MURS and Racing. The backlit LCD display makes for easy night time operation. Operates from two AA cells (not supplied). Use alkalines for long life or rechargeables for economy. Comes with: USB charging cord, belt clip, BNC antenna and Owner's Manual.

List $179.99 *Order #0125* **$129.95**

uniden

Bearcat

BC365CRS



The **Uniden Bearcat BC365CRS** is your perfect bed side companion, covering VHF-Low, Commercial Air, VHF-High, Military Air Band and the UHF (406-512) band. Plus it gets the regular FM broadcast band. Enjoy 500 scanning channels in ten banks plus 30 for FM. There is an alarm clock. Service search allows quick access to common police, fire, ambulance, aircraft, amateur radio, and marine radio frequencies. It is also narrowband compliant. BC365CRS controls are easy to use and the backlit display is very readable, even at night. External jacks on the rear panel include: BNC antenna jack, earphone jack and external power. The BC365CRS comes with: AC adapter, telescopic antenna and printed Owner's Manual. Insert three AA alkaline cells (not provided) for power backup. Size: 8.25 x 6.125 x 3.125".

List $139.99 *Order #5365* **$99.95**

Using a scanner in a vehicle is restricted in some states.

uniden

Bearcat

BC75XLT

- 29 - 30 Ham Band 10 M
- 30 - 50 VHF Low
- 50 - 54 Ham Band 6 M
- 108-137 Aircraft
- 137-144 Federal Gov't
- 144-148 Ham Band 2 M
- 148-174 VHF High Band
- 406-420 Federal Gov't
- 420-450 Ham Band 70 cm
- 450-470 UHF Band
- 470-512 UHF "T" Band

The **Bearcat BC75XLT** 300 channel (10x30) scanner is a great value. Frequency coverage is 25-54, 108-174, and 406-512 MHz. It has Uniden's Close Call® RF Capture Technology that instantly tunes to signals from nearby transmitters. The Priority Scan function scans the channels you have designated as priority channels. The Delay function helps prevent missed replies. There are ten service banks with preset frequencies for: weather, police, fire/emergency, marine, racing, civil aircraft, amateur radio, railroad, CB and other (FRS/GMRS/MURS). Other features include keypad entry, earphone jack, key lock, battery low alert, battery save and backlit LCD display. Operation is from two AA cells (not included) providing flexibility in choice of batteries: Alkaline for long life or rechargeable NiMH batteries for economy. It is important that you select the correct battery type via the slide switch in the battery compartment. NiMH type batteries can charge while in the scanner. NiMH AA batteries may be charged from a USB power source (such as a PC) or the optional USB AC adapter via the included USB cable. The BC75XLT comes with: belt clip, flexible BNC antenna, USB charging cable and printed Owner's Manual.

List $139.95 *Order #3075* **$89.95**

uniden

BC355N

The **Uniden Bearcat BC355N** is a scanner covering 13 preset search bands including VHF Air and the 800 MHz Public Service band. It is preprogrammed and is user programmable. It has six preprogrammed service bands plus 300 user-programmable private channels. Advanced features include: Turbo Search, one-touch weather, channel lockout and narrowband channels. The rear panel has a BNC antenna jack and a 3.5mm mini external speaker jack. The bottom of the radio has a flip-out tilt-stand. This radio comes with: BNC type telescopic antenna, wire window antenna with suction cups, AC adapter, cigarette lighter DC power cord, *Operating Guide* and mounting bracket. 5.4 x 1.7 x 5.75" 1 lb. 6.5 oz.

List $149.99 *Order #2355* **$104.95**

uniden

Bearcat

BCD325P2

Near continuous, wide VHF/UHF coverage

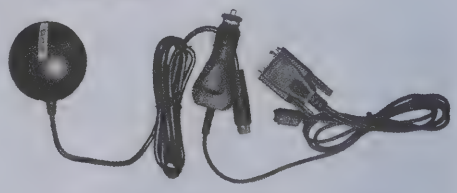
- 25-512 MHz
- 758-824 MHz
- 849-869 MHz
- 894-960 MHz

The **Uniden Bearcat BCD325P2** offers state-of-the-art Trunk Tracker V™ scanner technology. It has APCO 25 Phase I *and* II digital capability. You can store in the dynamic memory, conventional frequencies such as police, fire/emergency, marine, air, amateur, and other communications. The coverage includes: 25-512, 758-824, 849-869 and 894-960 MHz. Use the Scroll Control to quickly select channels and frequencies and you can automatically program channels in a system using the Auto Store feature. The optional GPS allows the user to define the scanner display to show location-based information. It will alert at areas of special interest, such as dangerous intersections, school zones, or points of interest. The BCD325P2 also has Close Call™ RF Capture Technology, 12 Service Searches, Dynamic Memory Management, Narrow band Reception, Fire Tone-Out and Multi-site programming as well as 25,000 channels. Also includes: Audio AGC, band scope function, SAME Weather Alert, IF Exchange, Crows-Flight Navigation (with optional GPS), Key safe mode and channel alert. Includes: Two Ni-MH AA batteries, BNC flexible antenna, USB cable, hand strap and printed manual.

List $599.95 *Order #4325* **Please Call**

uniden

BC-GPSK



The **Uniden BC-GPSK** serial GPS receiver provides a simple solution to connecting a GPS to your Uniden location-based scanner. It will continually tell your scanner where it is, so it may select the appropriate frequencies for the area you are passing through. This high-sensitivity, WAAS capable unit provides industry-standard NMEA 0183 output. The included cable plugs directly into a DB-9 RS-232 port of the scanner. The compact GPS design includes a magnetic base to easily secure to your vehicle. It includes a cigarette lighter power cord. Its weatherproof design allows outside mounting for best satellite signal reception.

Uniden BC-GPSK *Order #6349* **$89.95**

uniden Bearcat

SDS100

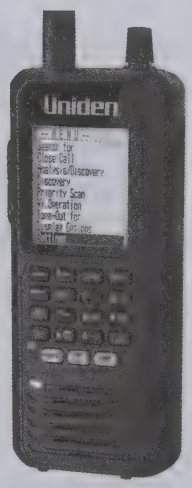
The **Uniden Bearcat SDS100** starts off with the considerable capabilities of the respected BCD436HP with TrunkTracker X™ technology, APCO Project 25 Phase I and Phase II, X2-TDMA, Motorola™, EDACS™ and LTR™ Trunked Radio Systems. The SDS100 is the first scanner with true I/Q software defined radio technology. And it includes the innovative features of the Homepatrol such as Zip Code programming (USA/Canada). Additional modes such as DMR Tier III, Hytera XPT, Single Channel DMR, NXDN 4800/9600 and EDACS ProVoice will eventually be available by a paid upgrade. Frequency coverage is 25-512, 758-824, 849-869, 894-960 and 1240-1300 MHz. Enhancements include SAME weather Alert, Channel Volume Offset, Multi-Site System Scanning, free Sentinel Software, Li-ion battery, three contextual soft-keys that change function based on current operation. It features a huge color display that is user customizable. Weather resistant to the JIS4 (IPX4) standard. Includes AC adapter, USB cable, hand strap, installed MicroSD card, lithium ion battery, SMA-BNC adapter, SMA antenna, belt clip and printed manual.

Order #6100 **Please Call**

This device has not been approved by the F.C.C.
This device may not be offered for sale or lease or be sold or leased until approval of the F.C.C. has been obtained.

uniden

BCD436HP



The **Bearcat BCD436HP** with TrunkTracker V™ technology, offers APCO Project 25 Phase I and Phase II, X2-TDMA, Motorola, EDACS, and LTR Trunked Radio Systems. It shares some of the innovative features of the Homepatrol such as Zip Code programming and bandscope display. The included 4 GB SD card includes the USA/Canada frequency database. You get full 31 band frequency coverage. External jacks are provided for: SMA 50 ohm antenna, 3.5 mm headphone (not provided), USB. This radio may be operated from either three NiMH (supplied) or alkaline (not supplied). The BCD436HP includes: three NiMH AA cells, SMA-BNC adapter, microSD card (installed), SMA rubber antenna, wrist strap, USB PC cable, belt clip and printed manual.

List $499.95 *Order #0436* **Please Call**

uniden

HOMEPATROL-II

The revolutionary Uniden Homepatrol I introduced ease of use, performance and features previously not available. Programming is easy. Just enter your zip code into the color touch-screen and the Homepatrol searches within a 10 mile radius of the center of that zip code. Or enter the city, and the range is 20 miles from the center of the city. If you use the AutoLocate feature, that range increases to 30 miles. Usable as a base or portable unit, and coverage is 25-54, 108-512 and 758-960 MHz (less cellular) in AM, FM and FM wide modes. TrunkTracking EDACS (N/W), LTR, Motorola (analog/mixed/digital) and APCO P25 are supported. If you have a compatible GPS (not included), this radio will even know where it is and have the appropriate frequencies available. A micro SD card is included to store your favorite frequencies. The Replay feature instantly replays the transmissions you just heard (30 to 240 seconds). The Record function allows recording longer intercepts for later review. Although the initial set-up is very easy and automated, you can use the configuration menu to fine tune the radio to your preferences. The *next generation* **Homepatrol II** adds APCO 25 Phase2 capability and is recharged exclusively via the USB port. (AC and car adapter are *not* included).

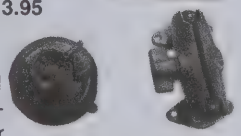
List $699.99 *Order #6420* **Please Call**

BCKHP-1

The **Uniden BCKHP-1** is a simple plastic bracket designed to hold the Uniden Homepatrol-I/II. It features two mounting holes and includes nuts and bolts.

Order #1404 **$13.95**

WBHP-1



The **Uniden WBHP-1** is a suction type windshield mounting kit for the Homepatrols. This kit includes the BCKHP-1 and hardware, although not shown above.

Order #3924 **$39.95**

uniden

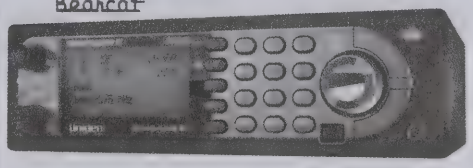
USB-1

The **Uniden USB1** is a USB cable that will be required if your PC does not have an RS232C serial port. It works with many Uniden scanners such as the BC246T, BCD396T/XT, BCD996T, SC230 and BCT15. The USB drivers are available on the Uniden website.

Order #4764 **$29.95**

uniden Bearcat

BCT15X

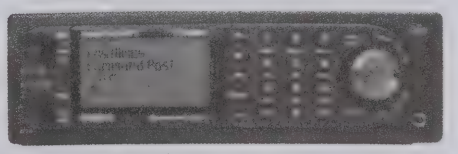


The **Uniden Bearcat BCT15X** is a GPS-enabled scanner that automatically selects nearby radio systems for scanning (GPS not supplied). The BCT15X also offers Uniden's unique BearTracker system, which alerts mobile users to public safety activity in their area as well as Close Call® RF Capture Technology that automatically locks onto nearby signals with no programming necessary. The GPS-enabled feature offered by the BCT15X provides automatic system selection, which permits the scanner to turn system reception on or off depending on the user's location, and allows the user to customize the scanner display to show location-based information. In addition, when a GPS unit (not included with this scanner) is connected to the BCT15X, the scanner will send alerts at areas of special interest, such as dangerous intersections, school zones, or general points of interest. This model supports TrunkTracker III systems: Motorola Type I/II/IIi Hybrid, EDACS and LTR analog trunk systems. It features 9000 channels. Please note that the BCT15X does *not* have TrunkTrackerIV or APCO 25 capability. Comes with: AD-1009 AC Adapter, Cigarette Lighter Cord, DC power cord, mounting bracket, push-on telescopic BNC antenna, PC serial cable and Manual on CD. 7.25 x 2.2 x 6.06 in. 3.5 lbs.

List $299.95 *Order #0015* **$179.95**

uniden Bearcat

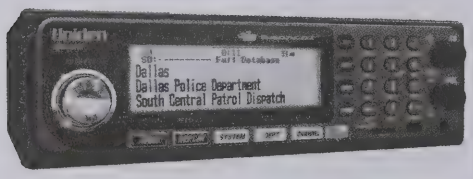
BCD996P2



The **Uniden Bearcat BCD996P2** is a state-of-the-art scanner radio with Trunk Tracker V™ and automatic scanning capabilities. This is a GPS-enabled scanner (GPS not supplied), allowing the radio to automatically select nearby radio systems for scanning. The BCD996P2 also offers APCO 25 Phase I *and* Phase II digital capability, allowing consumers to monitor the activities and signals of city and government service departments. It also offers Close Call™ RF Capture Technology, Dynamic Memory Management, Fire Tone-Out, and Multi-site programming as well as 25,000 channels and a frequency range of 25 MHz to 1.3 GHz (excluding cellular). Other enhancements include band scope function, Narrow band reception, Crows-Flight Navigation (with optional GPS), IF Exchange, backlit keys and display, NAC decoding, Key safe mode and channel alert (tones and backlight color). Included items: AC adapter, DC cord harness, mounting bracket, telescopic antenna, USB cable and manual.

List $699.95 *Order #4996* **Please Call**

uniden BCD536HP



The **Bearcat BCD536HP** is Uniden's new flagship mobile scanner - which incorporates two firsts. Like the BCD436HP, it is the first mobile scanner to include the ease of use of the HomePatrol-style database. Simply enter your zip code. The second innovation is WiFi connectivity. Listen to and control your scanner using your smartphone or tablet. Other features include:

A supplied **4 Gigabyte microSD** card holds the USA and Canada database and leaves room for hundreds of hours of audio recording.

Programmable Alert LED lets you set a specific color to alert you when a channel becomes active.

TrunkTracker V with support for APCO Project 25 Phase I and Phase II, X2-TDMA, Motorola, EDACS, and LTR Trunked Radio Systems.

Quick Key access to 100 Favorites Lists.

Discovery Modes helps you find new channels on trunked systems and frequency ranges.

Analysis Modes include Band Scope, RF Power Plot, Trunked System Analysis, and EDACS/LTR LCN Finder.

Flexible Easy Channel Selection using Zip Code or GPS. Pick the kinds of channels you want to hear and tell the radio where you are.

Easy Scan Control using the dedicated System, Department and Channel Hold buttons.

Complete Front-Panel Programmability — create custom Favorites Lists.

Temporary Avoid lets you quickly silence unwanted systems, departments, or channels.

Backlight-on-Squelch option allows the backlight to remain on during an entire transmission.

Date/Time indication on display with time stamping for recordings.

Close Call® RF Capture automatically tunes the scanner to nearby transmissions.

NOAA Weather Alert with SAME.

Two-Tone Paging with up to 32 tone slots.

USB PC Connectivity.

Serial GPS input for location-based scanning.

List $699.95 *Order #4536* **Please Call**

GO-BAG

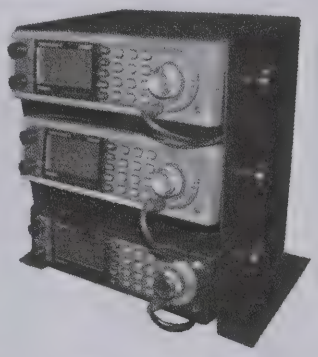
This insulated bag is a great way to protect your scanner. There is plenty of room for your radio, batteries, accessories, directories and more. With zippered top, carry strap and front open pocket.

8 x 6 x 5 inches. Blue with Universal Radio logo.

Universal Go-Bag *Order #5733* **$7.95**

✔ Please see **Scanner Antennas** on pages 35-36.

SPECTRUMFORCE



The **Spectrum-Force Base Scanner Mounts** are built with strong sheet-metal, allowing you to attractively mount and display one or two base or base/mobile scanners that are approximately 7 to 7.5" wide. You can mount any combination of the following Uniden Bearcat Scanners: 760, 780, 785, 796, BCT15, BCD996T, GRE PSR400 and PSR600, Whistler WS1065 and a variety of Radio Shack models including the Pro2053 and Pro2096 and similar models.

2 Base Radios	*Order #2354*	**$59.95**
3 Base Radios	*Order #2479*	**69.95**
4 Base Radios	*Order #5886*	**79.95**

✔ Please see **Scanner Antennas** on pages 35-36.

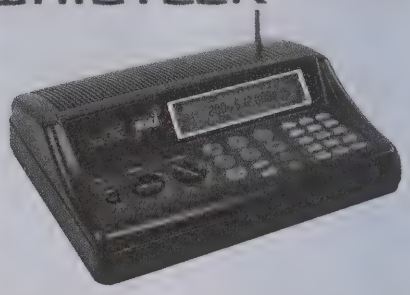
Using a scanner in a vehicle is restricted in some states.

WHISTLER TRX-1

The **Whistler TRX-1** handheld scanner brings new capabilities and transmission modes to its customers. This multisystem adaptive digital trunking scanner supports NXDN, Motorola P25 Phase I, X2-TDMA, Phase II *and* **DMR** making it capable of monitoring the following unencrypted channels/systems: Conventional DMR (Entered as a DMR trunked system), Hytera XPT, MotoTRBO™ Capacity Plus, MotoTRBO™ Connect Plus, MotoTRBO™ Linked Cap Plus systems. Features include: Simple Zip Code programming with preloaded USA/Canada MicroSD card included, Easy updating via Internet, APCO P25 Digital Phase I & II, Compact, modern case design, CTCSS and DCS subaudible decoder, Dedicated SKYWARN®/Weather button, IF Discriminator Out, User upgradable CPU firmware, Spectrum Sweeper, Store Favorites Scan List. Whistler has also announced that development of NXDN monitoring is underway and the TRX-1 and TRX-2 will include NXDN as a free upgrade when available. Requires 4 AA batteries (not included).

List $649.95 *Order #0824* **Please Call**

WHISTLER WS1025



The **Whistler WS1025** is an affordable scanner with innovative features. Frequency coverage is: 29-54, 108-137, 137-144, 144-148, 148-150.8, 150.8-162, 162-174 and 380-512 MHz. You can also receive the FM broadcast band (which has 20 separate memories). Other features include: 200 memories and five pre-programmed bands (Marine, Fire/Police, Air, Amateur and Weather) and priority channel. The weather capability features SAME technology (with 8 FIPS area memories). This radio scans at 40 channels per second and sweeps at 80 steps per second. There is also a keypad for direct frequency entry. The large backlit display shows channel and frequency. This radio supports programming by a PC and unit-to-unit cloning (software not supplied). There is a 3.5 mm earphone jack and BNC external antenna jack on the rear panel. The WS1025 comes with a screw-in telescopic antenna, AC adapter and manual. 8.25 x 2.375 x 6.875 inches 24.7 oz.

List $139.95 *Order #5020* **$89.95**

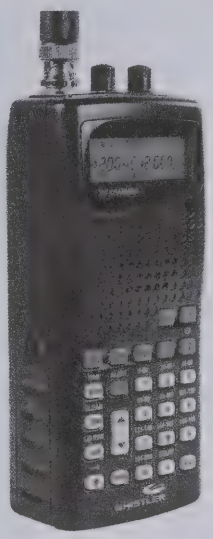
WHISTLER TRX-2

The **Whistler TRX-2** includes all the features of the TRX-1 handheld scanner, but in a mobile/base configuration. This includes multisystem adaptive digital trunking scanner supports Motorola P25 Phase I, X2-TDMA, Phase II *and* **DMR** making it capable of monitoring the following unencrypted channels/systems: Conventional DMR (Entered as a DMR trunked system), Hytera XPT, MotoTRBO™ Capacity Plus, MotoTRBO™ Connect Plus, MotoTRBO™ Linked Cap Plus systems. The development of NXDN monitoring is complete and the TRX-1 and TRX-2 are both now NXDN capable. The frequency coverage is: 25-54, 108-136.99, 137-174, 216-512, 764-781.99, 791-798.99, 806-960 (excluding cellular bands) and 1240-1300 MHz. 7.125 x 1.75 x 5.35".

List $729.95 *Order #0349* **Please Call**

MotoTRBO is a trademark of Motorola, Inc.

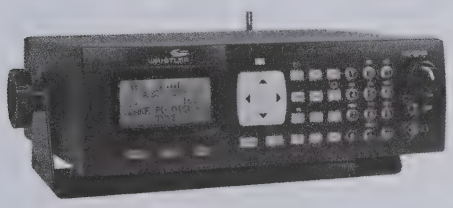
WHISTLER WS1010



The **Whistler WS1010** is an affordable hand-held scanner with innovative features. Frequency coverage is: 29-54, 108-137, 137-144, 144-148, 148-150.8, 150.8-162, 162-174 and 380-512 MHz. 200 memories and five pre-programmed bands (Marine, Fire/Police, Air, Amateur and Weather). There is also a built-in priority channel. The weather alert capability features SAME receiving with 10 FIPS area memories plus there is a Skywarn function. There is a lock-out review key to confirm lock frequencies. There is a key lock for safety and the LCD is backlit. This radio is PC programmable and supports unit-to-unit cloning. There is a 9VDC external power jack and an earphone jack. The WS1010 comes with a flexible BNC antenna, belt clip, AC adapter, manual, 4xAA alkaline battery holder *and* 4xAA rechargeable battery holder. 2.4 x 5.8 x 1.7 inches 8 oz.

List $139.95 *Order #1010* **$94.95**

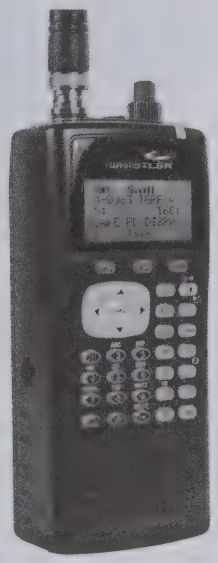
WHISTLER WS1065



The **Whistler WS1065** employs cutting edge technology to bring a high level of performance and innovative features. This model clearly raises the bar for advanced trunking scanners. Frequency coverage is extensive including: 25-54, 108-17, 137-174, 216-512, 764-776, 795-805, 849-869, 896-960 and 1240-1300 MHz. The vast memory system can store 40744 objects in 20 dynamically allocated scan lists. The large backlit LCD is four lines by 16 characters. The keys are also backlit. Supported trunking systems include Motorola Analog, EDACS, LTR and Digital APCO (9600 bps). There is a weather alert function, SAME technology and Skywarn features. The spectrum sweeper function seeks out nearby RF sources. The exclusive multicolor ALERT-LED provides a visual indication of activity on selected channels or talkgroups. Includes telescopic BNC antenna, AC adapter, 12 volt wiring harness, DIN-E vehicle mounting shell, USB PC cable and CD.

List $399.95 *Order #1065* **$289.95**

WHISTLER WS1040



The **Whistler WS1040** employs an intuitive Object Oriented User Interface designed for ease of use, yet powerful enough to satisfy the most sophisticated users. Frequency coverage is extensive including: 25-54, 108-174, 216-512, 764-824, 849-869, 896-960 and 1240-1300 MHz. 1800 memories may be dynamically structured to bank sizes you prefer. A sophisticated Service Search is featured. This model also employs V-Scanner Technology that allows you to save a complete radio configuration within the radio, for recall into main memory as needed in the field. You can store configurations for different geographical areas or usage styles. Twenty one Virtual-Scanner Folders are provided, each capable of storing over 1,800 objects. The WS1040 scans common trunked radio systems including Motorola Analog, EDACS, LTR and Digital APCO (9600 bps). Talkgroup and individual call monitoring is supported. When monitoring P25 digital systems, the exclusive Automatic Adaptive Digital Tracking instantly adapts the digital decoder to the digital modulation format of the transmitted signal, then analyzes the signal over 50 times each second to adapt to changes caused by multipath or fading. CTCSS and DCS subaudible squelch coding is processed by the same powerful DSP chip that is used for P25 digital decoding. It provides fast and reliable decoding of subaudible squelch signaling with squelch tail elimination. The large backlit LCD is four lines by 16 characters. The keypad is also backlit. There are weather alert function, SAME technology and SKYWARN features. The multi-colored, super bright LED can be programmed. For example; blue for police, red for fire, green for ham radio, etc. The SKYWARN Storm Spotter feature provides instant, one button access to frequencies used by storm spotter networks. The spectrum sweeper function seeks out nearby RF sources. Operates from four AA cells or included 9VDC AC adapter. Supplied accessories include: BNC antenna, USB PC cable, 9VDC AC adapter, printed Owner's Manual, belt clip and two battery cases (one for alklalines and a yellow one for rechargeables).

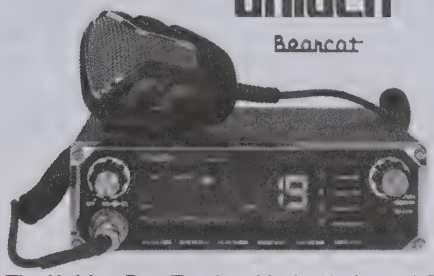
List $399.95 *Order #1040* **$279.95**

REFERENCE MANUALS

Please see *Easier To Read Manuals*, *Nifty Mini-Manuals* and *Nifty Reference Cards* in the book section at the end of this catalog.

✔ Please see **Scanner Antennas** on pages 35-36.

885 uniden Bearcat



The **Uniden BearTracker 885** is 40 channel CB radio ***plus*** digital TrunkTracking scannerr. Enjoy the convenience of a top quality CB and keep up-to-date with current public safety activity anywhere in the US and Canada by scanning for police, fire, ambulance, and/or DOT radio traffic. And do not worry about changing scanner programming as you drive. The included GPS allows the BearTracker 885 to automatically select nearby channels from its nationwide database! All you have to do is drive and listen! Scan system includes conventional analog, Motorola, LTR, EDACS, APCO P25 Phase I and Phase II with coverage of VHF, UHF and the 700/800 MHz bands. The CB portion includes all 40 channels, at the full legal 4 watts. The *BearTracker Warning System* alerts you when nearby public safety transmissions are detected. CB enhancements include: 7 color display, SWR meter, RF Gain, NOAA weather alert, PA (public address), antenna check, vehicle power check, noise-canceling mic, CB/Scan priority selection, priority channel and scanning. The rear panel has an SO-239 jack for the CB antenna, and a BNC jack for the scanner antenna. Antennas sold separately.

List $450.00 *Order #3885* **$389.95**

AR-STV AOR

The **AOR AR-STV** is a video receiver covering 900 to 2800 MHz. It features a 2.5 inch color LCD display. It has a recorder and sensor that captures video signals in real-time. Its built-in clock allows images to be time-stamped and an optional 4 GB SD memory card can be used to store up to nearly 2000 images. The AR-STV can detect NTSC, PAL, CCIR, EIA or scrambled reverse polarity video signals (but not broadcast TV). It receives and displays video signals on L-band (1.2 GHz) or S-band (2.4 GHz). The USB connector makes it easy to download stored images into a PC. Operates from 4 AAs or external DC power. With: SMA rubber duck antenna, four NiMH batteries and belt clip.

List $1019.00 *Order #5131* **$969.95**

This specialized device is *not* a scanner, but does not fit into any other catalog classification. Please also note it does *not* receive broadcast TV.

What is Wi-Fi Internet Radio?

Thousands of AM, FM, shortwave and Internet stations simulcast, or stream their transmissions over the Internet. These stations can be heard using a personal computer or a WiFi Internet radio. Either requires a **broadband** (high-speed) connection to the Internet. Internet radios require either a WiFi wireless or Ethernet wired router connection. Many Internet radio listeners enjoy using an Wi-Fi radio rather than a computer because it is easier, more intuitive, more convenient and more energy efficient than using a PC.

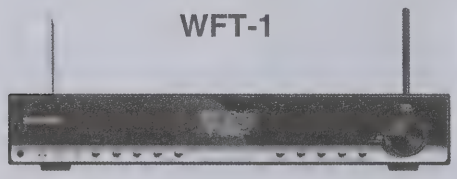
SANGEAN

WFR-28

The **Sangean WFR-28** is a combination Internet radio and audio media streaming device that is fully portable. With it users can listen to over 13,000 radio stations from NPR, FOX news, CNN, BBC, CBS to KROQ, and over 35,000 podcast as well as to your regular FM Band with RDS (Radio Data System). Frontier Silicon's IR 2.2 network audio software provides the most complete, versatile and easy-to-use software available for the next generation Internet-connected audio systems. The WFR-28 delivers sound beyond its size. Bass and treble controls let you further adjust the sound to your liking. DLNA, UPnP & Windows 7 Certification is supported to enhance music sharing & playing. The WFR-28 even supports remote control by iPhone™ and iPod™ touch thanks to the *iSangean* app! This radio requires a broadband wireless Internet connection (except for the FM band). You can listen directly from your wireless router. No PC required. 9.4 x 6 x 2.5 inches 2 lbs.

List $169.95 *Order #4028* **$139.95**

WFT-1



The **Sangean WFT-1** WiFi component tuner lets you add new excitement to your existing entertainment system. Select from over 16000 Internet Radio Stations, *plus* enjoy any of your local standard favorite FM stations. You can upload your favorites or any Internet station to your tuner's *My Station* folder allowing quick and easy access to play through your entertainment center. Twenty presets are provided. As with all Internet radios, you will you need a broadband Internet connection and router. 16.9 x 2.8 x 10 inches 5.6 lbs.

List $399.95 *Order #3527* **Please Call**

SANGEAN

HDR-14

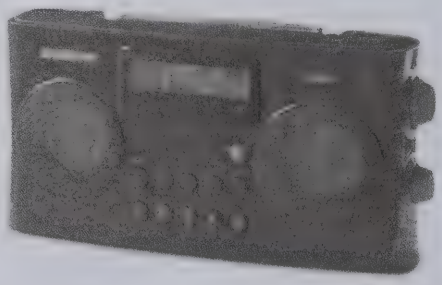
The **Sangean HDR-14** is a portable radio featuring digital HD Radio™ AM and FM reception. HD Radio™ technology will produce dramatically improved fidelity *and* provide additional HD-only radio programming. Enjoy additional content, including sports, news and music *without* any subscription fees. The radio has 20 Presets for AM and 20 for FM. There is a 3.5mm stereo headphone jack plus Line Output. The display can show Channel Frequency, Call Sign, Radio Text, Audio Mode, Service Mode, Signal Quality and Clock Time plus there is a low-battery LED. The clock has dual alarm and sleep functions. There is even support for emergency alerts. Telescopic FM whip antenna and AM ferrite antenna. Operates from three AA cells (not included) or via 5V AC adapter. 5 x 3.02 x 1.28 inches.

List $99.99 *Order #0214* **$79.99**

This new model is expected May 25, 2018.

SANGEAN

HDR-16



The **Sangean HDR-16** is a portable radio featuring digital HD Radio™ AM and FM reception. It also features an auxiliary input for playing iPod™ or MP3 player. There are headphone and line output jacks. You get five AM and five FM presets. The LCD screen shows: Channel Frequency, Call Sign, Radio Text, Audio Mode, Service Mode, Signal Quality and Clock Time. Other features include: backlit LCD, automatic mulitcast and simulcast reconfigurations, tone and bass control, auto ensemble seek, LED battery indicator, clock with dual alarms. 10.25 x 5.5 x 2.5 inches 1.5 lbs.

List $159.99 *Order #4516* **$99.99**

HD Radio technology manufactured under license from iBiquity Digital Corporation. U.S. and Foreign Patents. HD Radio™ and the HD, HD Radio and "Arc" logos are proprietary trademarks of iBiquity Digital Corp.

What is HD Radio™?

Over 1,800 AM and FM stations broadcast with HD Radio™ technology providing superior digital fidelity *and* additional services. HD2/HD3 channels give you greater listening variety. Program information such as callsign, song title and artists are often displayed. Emergency alerts may also be available in your area. And the best news is that all these benefits are 100% subscription free! Hear what you have been missing with a Sangean HD Radio™!

SANGEAN

HDR-18

The **Sangean HDR-18** is a table radio featuring digital HD Radio™ AM and FM reception. It also features an auxiliary input for playing iPod™ or MP3 player. There are headphone and line output jacks. You get 10 AM and 10 FM presets. There are easy to use controls plus a supplied infrared remote. The backlit LCD screen shows: Channel Frequency, Call Sign, Radio Text, Audio Mode, Service Mode, Signal Quality and Clock Time. Other features include: automatic mulitcast and simulcast re configurations, clock with dual alarms, auto ensemble seek and acoustically tuned wood cabinet. The bass, treble and loudness levels may be adjusted. The display brightness, contrast and language may be set. Includes infrared RC-P27 remote control, two AAA batteries for remote and AC power adapter. 9.4 x 4.5 x 7.2" 5.7 lbs.

List $199.99 *Order #6018* **$169.99**

SANGEAN

HDT-20

The **Sangean HDT-20** tuner features HD Radio™ technology to provide superior audio fidelity plus HD2/HD3 channels that often travel along the traditional signal to provide you with more listening variety. Program information will display on the screen that may show radio call signs, song titles or artists. Enjoy AM, AM-HD stereo reception, FM and FM-HD stereo reception through your existing stereo. Twenty presets (10 AM/10 FM) are provided. Simply plug in and attach through a set of stereo RCA cables and you are ready to listen to crystal clear digital radio. Please note that the HDT-20 is a tuner only and does *not* have an amplifier or speakers.

List $279.99 *Order #3520* **$199.99**

MIDLAND WR-300

The **Midland WR-300** digital, all-hazard alert radio features the latest SAME (Specific Area Message Encoding) technology including new AMBER alerts. With regular weather alert radios you can be awakened all night by alerts from areas too far away to effect you. Now if the alert sounds you know it is for your area. This model can automatically alert you by specific county or area. Up to 30 areas may be programmed. False alarms are eliminated. This model receives all seven weather channels. The three-line LCD displays 48 different watches or warnings. The display is backlit (backlight is switchable). Three LED lights indicate at a glance the alert status (statement, watch or warning). The WR-300 has its own telescopic antenna plus has an external antenna jack (RCA phono). There is also an accessory jack (3.5mm mini) for keying optional external alert devices such as strobe lights or pillow vibrators. There is even an Audio Output jack for headphones or to feed an external audio amplifier. The built in digital AM/FM radio automatically switches to incoming alerts. The alert siren volume is adjustable. This device also serves as a digital clock (12 hours format). Install four alkaline AA cells (not supplied) to ensure use during power outages. The WR-300 comes with 120 VAC power supply or it will operate from 10-12 VDC. 7.5 x 1.75 x 5.25". One year limited warranty.

List $89.95 *Order #1450* **$49.95**

Please also see the **Kaito KA700** ***Voyager*** AM/FM/Weather radio on page 8.

EAR-10

The **Alert Works EAR-10** alerts you to pending danger from weather and civil emergencies. It receives all seven NOAA channels and features S.A.M.E. localized reception. It has time and alarm clock functions, an adjustable backlit display, and three LED alert levels: *Watch-Warning-Advisory*. The emergency battery back up feature requires 4 AA cells (not supplied). Rear panel jacks for external antenna and external alert. With 6VDC AC wall adapter. 7.75 x 4.25 x 4 inches.

List $49.95 *Order #5024* **$29.95**

SANGEAN CL-100

The **Sangean CL-100** S.A.M.E. tabletop all hazard alert radio is a Public Alert Certified weather radio and can receive all NOAA reports to notify people of severe weather advisories, watches and warnings conditions, civil emergencies, hazards and evacuation bulletins. The CL-100 can respond to emergency alert tones by activating a built-in audio or an external visual alarm (not supplied). The CL-100 has S.A.M.E. technology, the primary trigger for activating the US hazards and EAS (Emergency Alert System) used by commercial radio, television and cable TV outlets. S.A.M.E. allows you to screen unwanted or non-local alerts and filter distant warning broadcasts and monitor only those messages intended for your local area. For example if you live in a coastal county but not on the beach, you may not be interested in a coastal flood warning. The CL-100 also includes regular AM and FM reception with 5 memories per band. The FM band features RBDS technology to display: Program Service (PS) name, Radio text (RT) message, Clock Time (CT) and date. The built-in clock displays the time in 12 hour format plus has a calendar feature. The clock radio function with dual daily alarm can wake you to radio or buzzer. You can even adjust the LCD brightness and contrast. The rear panel has jacks for 6 VDC power in, stereo earphone, AM external antenna, FM/WX external antenna, auxiliary input, external alert and ground terminal. Includes ADP-PRD18 AC adapter. Insert four AA cells (not included) for battery backup during power outages.

CL-100 *Order #5100* **$64.95**

SANGEAN DT-400W

If you enjoy listening to AM, FM and weather while on the go, you will love the **Sangean DT-400W**. About the size of a pack of cigarettes, it will fit in your shirt pocket and receives AM, FM and FM stereo, plus NOAA weather audio. Other features include: 19 memories, 90 min. auto-shutoff, lock switch, backlit display, clock, deep bass boost, belt clip, built-in speaker, stereo-mono switch, earphone jack (3.5mm) and lightweight stereo earplugs. Requires two AA cells (not included). Coverage: 520-1710 kHz, 87.5-108 MHz and NOAA channels. Yellow.

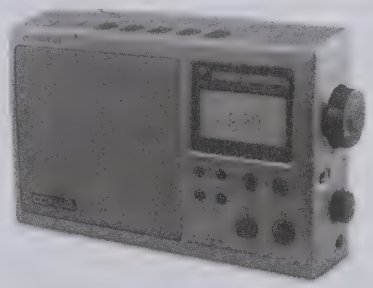
List $89.95 *Order #4400* **$59.95**

SANGEAN MMR-88

The **Sangean MMR-88** AM/FM emergency alert portable keeps you informed of severe weather and other emergencies. The backlit digital tuner receives AM, FM and all 7 NOAA weather channels. Operates from supplied lithium-ion battery, solar panel, crank or external DC USB input. It also contains a light source that may be set for high, low, blinking or Morse Code "SOS". There is a built-in clock and 90 minute auto-shut off. LEDs indicate charging and weather alert. Other features include: 19 AM/FM memories and stereo earphone jack. A micro USB-B input jack supports external charging. A USB-A DC jack can charge your mobile phone or MP3 player. With hand strap, manual and USB-A to micro USB-B cable. 6 x 3.3 x 2.75" 13.8 oz.

MMR-88 *Order #6312* **$49.95**

C.CRANE CC RADIO 2E



The **C. Crane CC Radio 2E** is a quality radio specifically designed for talk radio, news, sports and weather. Separate Bass and Treble controls, combined with the 5 inch speaker, provide a full sound. This digital radio tunes AM, FM, the 2 meter ham radio band and NOAA weather. A special Weather Alert feature notifies you of weather emergencies. Fine tuning on the AM band is to 1 kHz. Five stations can be stored into memory on each band. A clock alarm is also featured. This latest version 2 features a programmable timer (compatible with the CCrane Versa-Corder), audio in-out jacks, signal strength meter, battery strength meter, plus FM stereo through the headphone jack. This radio operates with the supplied AC cord or may be operated from four D cells (not supplied). Available in a mica black case or titanium silver colored case. 11 x 6.5 x 4 inches.

CC2BE Black *Order #3682* **$159.95**
CC2TE Titanium *Order #6155* **$159.95**

CC RADIO 2E OPTIONS

#	Model	Description	Price
5384	**CA3**	Carry Case	**$29.95**
4530	**PS2**	Padded Pillow Speaker	**17.95**
5951	**SSV**	Pillow Speaker w/ Vol.	**19.95**

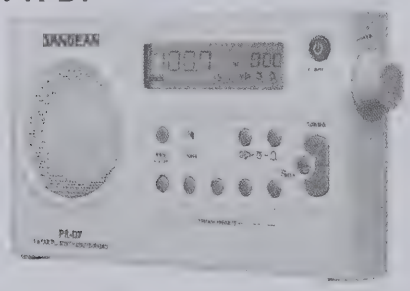
SANGEAN

PR-D5

The **Sangean PR-D5** is a top quality AM, FM, FM stereo radio with twin speakers. It has a 200 mm ferrite AM antenna for the best possible AM reception. The controls are very easy to use and you get 5 presets for AM and 5 for FM. It includes RDS technology to display station name, call sign, song title or other transmitted information, plus it can set the clock automatically. There is a stereo mono switch, AM 9/10 kHz step switch and backlit LCD. Rotary knobs are provided for tuning and volume. There is a built in clock timer with sleep function and humane wake up system to buzzer or radio. The left side of the radio has an auxiliary input and a stereo earphone jack. This radio includes an AC adapter and can also be operated from six C batteries (not included). 10.5 x 5.5 x 2.5 inches. One year limited manufacturer's warranty. This radio has an oversized AM antenna plus good selectivity and sensitivity. It is a strong choice for the MW DXer or anyone who listens to distant AM and FM stations. The Clear version does not have an auxiliary input or alarm function.

PR-D5 White	*Order #0068*	**$74.95**
PR-D5 Black	*Order #5756*	**$74.95**
PR-D5 Clear	*Order #5107*	**$74.95**

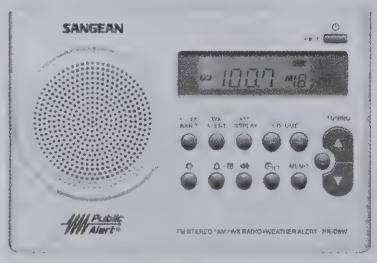
PR-D7



The **Sangean PR-D7** is a top quality AM, FM radio. The controls are very easy to use and you get 5 presets for AM and 5 for FM. There is a backlit LCD display. A rotary knob is provided for volume. Up-Down buttons are provided for manual tuning. There is a built in clock timer with sleep function and humane wake up system to buzzer or radio. The left side of the radio has an earphone jack. This radio includes a 12VDC AC adapter/charger and can also be operated from six AA cells (not supplied). The batteries load from the back panel. The AA cells may be of alkaline or rechargeable type. It is very important that the "battery type" switch in the battery compartment be correctly set to alkaline or rechargeable. 8 x 4.5 x 1.9 inches.

PR-D7 White	*Order #0211*	**$59.95**
PR-D7 Black	*Order #0432*	**$59.95**

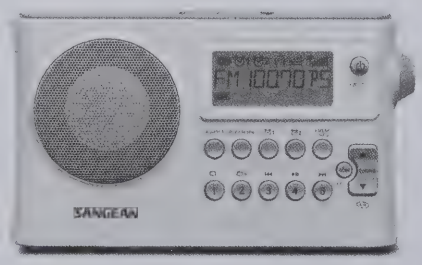
PR-D9W



The **Sangean PR-D9W** AM/FM Weather Alert portable radio is a perfect companion at a picnic, a ball game, a camping trip, and even to keep you informed at home through severe weather conditions and other emergencies or power outages. The 2.5 inch, 8 ohm speaker provides a full sound. The PR-D9W is a versatile, well-designed portable AM/FM radio coupled with a weather radio for updates and emergencies. It features a built in dual alarm clock that can wake you up in the morning, 19 total memory presets, auto scan tuning, lock switch, super capacitor back up power for clock and memory presets, sleep and snooze function and easy to read large LCD display with adjustable illumination. The clock may be set to either 12 or 24 hour format. There is a battery charging LED and battery power indicator. The back panel has a battery type selection switch for either Alkaline or NiMH/NiCad batteries. This radio requires four AA cells (not included). Includes AC adapter/charger.

PR-D9W	*Order #0097*	**$59.95**

PR-D14



The **Sangean PR-D14** is a compact portable AM/FM-RDS (Radio Data System) Digital Radio with USB port for playing MP3/WMA files from a USB drive. All controls are conveniently located and you can see the frequency and the clock on the display. It also features a tone control (talk and music) for more powerful overall sound. The PR-D14 has excellent sensitivity and selectivity and will surprise you at its ability to pull in those distant stations. Five presets are available on each band and the auto seek will automatically seek the active stations across the entire band rather than to the next frequency. The radio can be set to automatically turn off after 120, 90, 60, 45, 30 or 15 minutes, so you can fall asleep to the sound of music, talk or news. The humane wake-up alarm allows you to rise to music, buzzer or media (USB). You can power the PR-D14 with the included AC adapter or four "D" cells (not included). The 3 inch, full range speaker provides great sound. There are jacks for: Aux-in, headphones and DC input. 9.4 x 5.9 x 2.5".

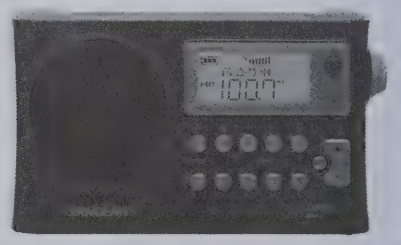
PR-D14	*Order #3014*	**$69.95**

PR-D15

The **Sangean PR-D15** is a top quality AM, FM, FM stereo radio with twin speakers. It has a 200mm ferrite AM antenna for the best possible AM reception. The controls are very easy to use and you get 5 presets for AM and 5 for FM. It includes RDS technology to display station name, call sign, song title or other transmitted information, plus it can set the clock automatically. There is a stereo mono switch and backlit LCD. Rotary knobs are provided for tuning and volume. The clock has a timer with sleep function and humane wake up system to buzzer or radio. The radio has an auxiliary input and a stereo earphone jack. Includes a 9VDC 700 mA AC adapter and can also be operated from six alkaline or NiMH C batteries (not supplied). Output power is 800mw x 800mw. 10.5 x 5.5 x 2.5 inches.

PR-D15	*Order #2015*	**$89.95**

PR-D4W



The **Sangean PR-D4W** uses the latest radio technology including bandwidth narrowing and AM auto-tracking. The PR-D4W receives AM, FM and all 7 NOAA weather channels. It automatically alerts you to hazardous conditions via siren and flashing red LED. The radio features 25 memories (10 AM, 10 FM and 5 weather). The AM and FM bandwidth is adjustable for best reception. The built-in digital clock has snooze and sleep functions that gradually wake you to buzzer or radio. The backlit LCD has a battery and signal indication. Jacks for: DC In, Aux In and Headphone Output. Requires 4 "D" cells, not included. With AC power adapter and manual. 9.35 x 6 x 2.5".

PR-D4W	*Order #6422*	**$69.95**

PR-D6

The **Sangean PR-D6** AM - FM portable features a 3 inch speaker, strap, mini headphone jack, flexible FM antenna plus bass and treble controls. Requires 4 AA cells (not included) or external 6VDC. 6.7 x 4.9 x 2.8" 1.1 lbs.

PR-D6 Black	*Order #0988*	**$33.98**
PR-D6 Blue	*Order #4081*	**33.98**
PR-D6 White	*Order #5844*	**33.98**

SANGEAN DT-160

The **Sangean DT-160** AM/FM stereo pocket radio is simple, elegant and efficient providing unbelievable sound into the provided stereo ear buds (no speaker). This radio has 10 memories for FM and 5 for AM. Other features include: Deep Bass Boost , 90 minute auto-shut off, battery low indicator, signal meter, lock, clock, stereo/mono switch and 9/10 kHz AM tuning steps. Only 2.5 x 4 x 0.8 inches and 2.5 oz. Two AA batteries (not included) provides over 100 hours of listening. (No clock in #6661).

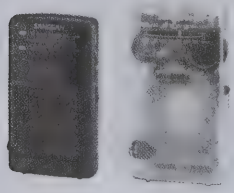
DT-160 WHITE	*Order #2160*	**$49.95**
DT-160 CLEAR	*Order #6661*	**$44.98**

SANGEAN DT-120

The **Sangean DT-120** AM/FM stereo receiver will fit your shirt pocket yet plays unbelievable sound into the provided stereo ear buds (no speaker). This radio has 10 memories for FM and 5 for AM. The Deep Bass Boost provides an amazing rich, deep sound for such a small radio. Other features include: stereo-mono switch, 90 minute auto-shut off, battery low indicator, scanning and 9/10 kHz AM tuning steps. Only 2 x 3.7 x 0.7 inches and 2 oz. Requires one AAA cell (not included), except for DT-120II which requires two AAA cells. In clear (shown) or white.

DT-120 CLEAR	*Order #1048*	**$34.98**
DT-120II WHITE	*Order #0134*	**$39.95**

SANGEAN SR-35 SR-35CL



The **Sangean SR-35** fit-in-your-pocket AM / FM radio for on-the-go listening. There is an analog dial and Tune LED. The built in speaker is 2.25 inches in diameter. With earphone jack. Operates from two AA batteries (not included). 3.1 x 4.5 x 1.3 inches 5.2 ounces. Black case.

SR-35	*Order #2035*	**$19.95**

The **Sangean SR-35CL** *clear* version does not have a speaker, but does include ear buds. This version complies with certain prison regulations.

SR-35CL	*Order #5646*	**$21.95**

TECSUN CR-1100

The **Tecsun CR1100** radio brings DSP technology to AM and FM listening. The 3 inch speaker delivers superior sound and impressive clarity. You can tune this radio four ways: manual, autoscan, direct memory-access and ATS autoscan memories (300 memories). The multifunctional backlit display shows frequency, noise level, electric field intensity, S/N ratio, temperature, 12/24 hour clock and battery strength. The alarm, with snooze, wakes you to a chime or radio. There are jacks for earphone, aux. input and FM antenna. Operation is from four D cells or external 6 VDC adapter (neither included). 10.25 x 6 x 2.5 inches.

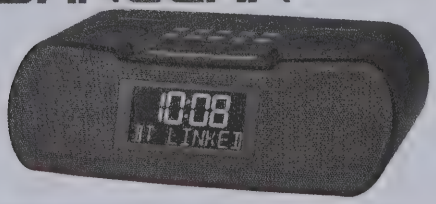
List $79.95	*Order #5864*	**$69.95**

SANGEAN PR-D18

The **Sangean PR-D18** is a rugged AM, FM, FM stereo portable receiver with built-in clock and alarms functions. The digital display may be backlit on demand. The rubber bumpers provide extra protection for travelling. Feature include five AM and five FM memories, auto station seek, sleep time, HWS humane wakeup system, battery indicator and lock button. Operates from four AA cells (not provided) or optional ADP-PRD18 AC adapter.

PR-D18 Black	*Order #0118*	**$49.95**
PR-D18 Red	*Order #0518*	**$49.95**
PR-D18 Blue	*Order #0318*	**$49.95**
ADP-PRD18	*Order #1289*	**$14.95**

SANGEAN RCR-20



The **Sangean RCR20** is *not* your Father's clock radio. It is loaded with cutting-edge features and delivers powerful audio with a ported bass tube specially designed for better bass response. Features include: ver. 4.1 Class II NFC Bluetooth, USB charge port, auxiliary input, headphone jack, stereo speakers, bass, treble and RDS. 10.5 x 3.5 x 7.2"

RCR-20	*Order #5163*	**$94.95**

C.CRANE CCPKT

The **C Crane CCPKT** portable AM, FM, weather radio is easy to use and has great performance for a small radio. It has five memory buttons per band and it stands upright for best audio through the speaker. With two AA cells (not included), you get up to 75 hours of play with the supplied earbuds or 25 hours through the speaker. Features include: backlit display, clock with alarm and sleep timer, removable belt clip, battery meter, signal meter plus stereo or mono FM reception. The weather alert automatically disables the AM/FM radio when activated. 2.5 x 4.25 x 1" 4 oz.

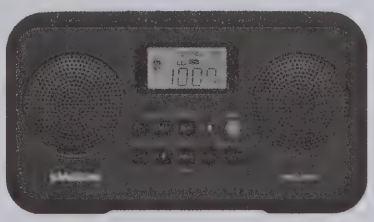
CCPKT	*Order #5949*	**$59.95**

C.CRANE COBS

The **C Crane CCSolar Observer** is your emergency radio solution. Hear your favorite AM or FM station and receive all seven NOAA weather channels. The display is back-lit for evening viewing. This radio can be powered by a wind-up dynamo, built-in solar panel or three AA cells (not supplied). There is also an optional AC adapter (see below). The left side of this radio has a 3-LED flashlight to illuminate your way. The right panel has jacks for earphone output, DC input or charging. 7.25" W x 5.5" H x 2" D. 1 lb.

CCRadio-COBS	*Order #5767*	**$44.95**
OBA AC Adptr.	*Order #5809*	**$12.95**

SANGEAN PR-D19



The **Sangean PR-D19** a rugged AM, FM, FM stereo portable receiver with true dual stereo speakers. The digital display may be backlit on demand. The rubber bumpers provide extra protection for travelling. Features include 5 AM and 5 FM memories, auto station seek, 12/24 hour clock, sleep timer (15/30/45/60/120 mins.), HWS humane wake up system, battery indicator, stereo earphone (3.5mm) earphone jack, auxiliary input jack (3.5mm) and lock button. Operation is from four AA cells (not provided) or optional ADP-PRD19 AC adapter. 7.75 x 4.25 x 1.75" 1.1 lbs.

PR-D19 Black	*Order #0119*	**$69.95**
ADP-PRD18	*Order #1289*	**$14.95**

SANGEAN WR-2

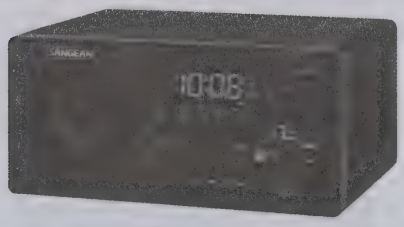
The **Sangean WR-2** puts high technology and incredible sound on your night stand or desk. The enclosure is acoustically balanced and the enhanced frequency response, front firing speaker and 7 watt amplifier provide rich room filling sound. Advanced features include: backlit four level LCD, lock with alarm (radio or buzzer), bass compensation, full range bass and treble control, auxiliary input jack, stereo headphone jack, 10 memory presets and RDS. Preset and clock values are saved 30 minutes during power outages. Antenna input for AM and FM plus headphone jack. With digital tuning, auxiliary input jack and full featured infrared remote. It features a removable AC cord and includes an FM wire antenna. FM antenna input via switchable 75 ohm F-type jack or Hi-Z terminals. Requires 117 VAC 60 Hz. There is also a DC input jack for operation from 12 VDC at 1 Amp. With removable AC cord, and FM wire antenna. 9.5 x 4.5 x 6" 5 lbs. 117 VAC 60 Hz.

WR-2WL Walnut *Order #3281* **$129.95**
WR-2BK Black *Order #3282* **$129.95**

The special **WR-2 Clear** version, in order to comply with correctional facility regulations, does *not* have a remote, auxiliary input or alarm function.

WR-2CL Clear *Order #2841* **$124.98**

SANGEAN WR-22



The **Sangean WR22** is in tune with the way we get our music today. There is a built in AM & FM RDBS receiver. Plus there is a front panel USB port to play your MP3/WMA personal sound library. The WR22 features the latest Bluetooth™ technology to receive your music or content wirelessly from your iPhone, iPad, etc. A 3-inch 7 watt full range speaker with large magnet provides rich sound. Base and treble, plus a loudness feature, allows you to customize your listening. It elegantly combines simplicity with rich features such as: 10 Station Presets (5 FM, 5 AM), high Contrast LCD with automatic and adjustable back light. There is a dual time alarm by radio, buzzer or media (by USB). Jacks for: DC-In, AC-In, Aux-In, Line Out, Subwoofer Out, headphone and FM [F] and AM antenna. A full function infrared Remote Control is included. 9.5 x 4.5 x 7.7 inches 6.5 lbs.

WR-22WL Walnut *Order #4022* **$149.95**
WR-22BK Black *Order #5971* **$139.98**

SANGEAN WR-11

With the **Sangean WR-11**, distant AM and FM stations are brought to your door step. The is acoustically balanced enclosure with enhanced frequency response provides rich room filling sound. The acoustic bass compensation and 7 watt amplifier give this small radio a big sound. Antenna input for AM and FM plus headphone jack. With vernier tuning, band indicator and auxiliary input. 9.5 x 4.5 x 6" 117 VAC. **SE** is darker.

WR-11 WL *Order #3854* **$84.95**
WR-11 SE *Order #6439* **$84.95**

SANGEAN WR-12

The **Sangean WR-12** is an AM, FM table radio with a traditional analog dial, but employs the latest advances in electronics to provide a superb, full sound. The *2.1* channel system uses dual stereo speakers and sub woofer. Bass and treble can be set independently and the dial back lighting is adjustable. It features an acoustically tuned, light walnut cabinet. External AM/FM antenna jacks.

WR-12 *Order #4012* **$149.95**

The **WR-12BT** has Bluetooth® and darker cabinet.

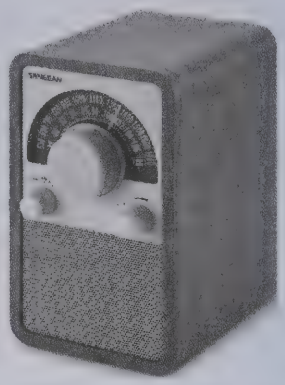
WR-12BT *Order #5972* **$169.95**

SANGEAN RCR-22

The advanced **Sangean RCR-22** AM/FM clock radio is precisely synchronized by the atomic time station in Boulder, Colorado. The LCD can also display the day of the week and month, day. Advanced features include: 15-120 min. sleep timer, snooze, a dual time 'HWS' Humane Waking System to gently ease you out of your slumber. 7 AM and 7 FM presets are available. With mini stereo headphone and auxiliary input jacks.

List $79.99 *Order #1284* **$59.95**

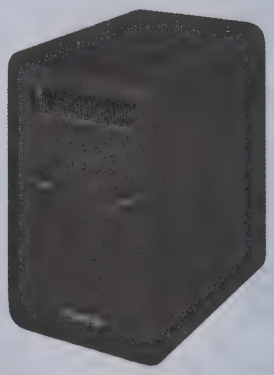
SANGEAN WR-15



The **Sangean WR-15** combines elegant simplicity with state-of-the-art performance. The simple design with three dials adjust the volume, select your AM/FM bands and select your station with a smooth vernier tuning. An LED indicator lets you precisely tune your station. The 3 inch full range speaker, coupled with a deep bass compensation, provides an amazingly big sound. The radio features an auxiliary input for additional audio sources. There is a Line Out for connection to an external amplifier. An external FM antenna can be attached if needed. Walnut vernier.

WR-15 WL *Order #4015* **$99.95**

SANGEAN WR-50



The **Sangean WR-50** combines traditional simplicity with the latest technology ... including built-in Bluetooth® wireless audio streaming. NFC - Near Field Communications, pairs to your smart phone or other Bluetooth device. The easy to read LCD is backlit. Tailor the sound to your preference with Bass, Treble and loudness controls. With infra-red remote control. Presets store your favorite stations. There is a right channel speaker output for an amplified speaker and a subwoofer output jack, plus an auxiliary input jack. And of course a stereo headphone jack. The built in clock has dual alarms, snooze and sleep functions and can be set by from FM RDS-CT. With remote and AC power adapter (12 VDC 1.5 Amps). 5.1 x 8.4 x 8.3" 4.5 lbs. 6 watts audio.

WR-50 *Order #5135* **$149.95**

KENWOOD HS-5

The **Kenwood HS-5** deluxe communications headphones offer comfort and performance at a modest price. Black metal and plastic. 8 Ohms. ¼" mono plug.

HS-5 *Order #0357* **$74.95**

Philmore HD3030

The **Philmore HD-3030** are luxury hi-fi headphones for the discriminating listener. There are volume controls on each ear piece as well as a Mono-Stereo switch. Response is 20 Hz to 20 kHz, 8 ohms. Supplied with 1/8" mini stereo to ¼" stereo adapter plug.

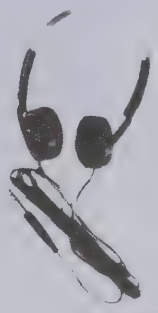
HD3030 *Order #2323* **$17.95**

HEIL SOUND ProSet 3

The **Heil ProSet 3** headphones have an extended frequency response of 10 Hz to 22 kHz for exceptional clear and balanced sound reproduction. And it provides outside noise reduction. The ergonomic design has a soft, adjustable cushioned headband and you get padded, replaceable ear cushions. The convenient folding construction allows for compact transport and storage. It has three twist lock detachable cables terminating to 1/8" (3.5 mm) plug. Plus a gold-plated stereo, screw-on ¼" adapter is included. Almost every Universal employee uses these headphones.

PS3 *Order #5893* **$99.95**

YAESU YH-77STA



The **Yaesu YH-77STA** light weight stereo communications headphones are designed primarily for use with Yaesu's top-end transceivers, but will also work with most newer communications receivers that support a stereo jack. Adjustable. With ¼" stereo plug.

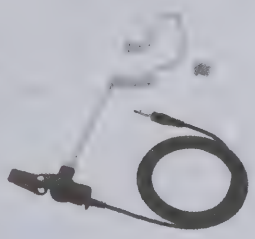
YH-77STA *Order #2342* **$89.95**

MFJ MFJ-392B

The **MFJ-392B** headphones are great for all modes: SSB, FM, AM, data and CW. Each cushioned earphone has an individual volume control. With free ¼ inch phone adapter. These lightweight earphones (8 oz.) come with a 9 feet cord. MFJ-392B handles 450 mW and has a frequency response of 100-24000 Hz. Impedance is 16 Ohms at 1 kHz, sensitivity is 102dB/mW. Works in mono or stereo mode.

MFJ-392B *Order #4678* **$24.95**

ICOM SP-27



The **Icom SP-27** clear acoustic tube earphone is designed to be hidden behind the ear making it hard to see. This makes it an ideal earphone for security, hotels, restaurants, retail and airports. Supplied with a clothing clip and spare ear bud. It has a 38 inch cord with 3.5mm mono threaded connector.

SP-27 *Order #3209* **$26.95**

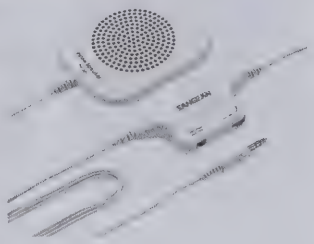
GRUNDIG EARBUDS

These stereo **Grundig Earbuds** earbuds terminate to a 3 conductor right-angle mini plug (3.5mm). They are similar to the original ones supplied with many Eton-Grundig portable radios.

EARBUDS *Order #5872* **$3.98**

■ Unlike hi-fidelity headphones which are designed for maximum frequency response, communications headphones have a shaped response to enhance voice-CW frequencies only.

SANGEAN PS-300



The **Sangean PS-300** speaker sits comfortably under your pillow. It plugs into most audio devices including radio, iPhone, iPad, MP3 player, Smartphone or TV. Enjoy your listening without disturbing your partner. Unlike other pillow speakers, this model has a built-in volume control *and* an audio amplifier to enhance the output level. There is a switch to turn off the amplification and drive the speaker directly to save battery life. Requires one AAA battery (not supplied). The 6.5 foot cord terminates to a stereo 3.5mm mini plug.

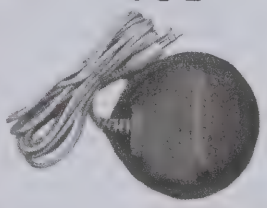
PS-300 *Order #6029* **$18.95**

SANGEAN PS-100

The **Sangean PS-100** Pillow Mate speaker sits comfortably under your pillow. You can listen to your radio without disturbing your partner. White with cord that terminates to a stereo mini-plug. 3.5 x 4 x 1 inches.

PS-100 *Order #0885* **$12.95**

C.CRANE PS-2



The **CCrane PS-2** SoftSpeaker makes private listening in bed comfortable. Just slip it under the pillow, or the padding is so soft you can even set it directly under the ear. The foam padded cover is removable for cleaning. It has a 6 foot cord terminating in a 3.5mm mini stereo plug.

PS-2 *Order #4530* **$17.95**

C.CRANE SSV

The CCrane SoftSpeaker™-2 features an in-line volume control to adjust the volume level of the pillow speaker without having to change the volume on your radio or audio device. The SoftSpeaker was designed to be used close to your ear so only you can hear it. The speaker has a soft cover so you may easily rest your ear right on it. It offers the perfect combination of comfort, privacy and quality. Its durable, high-flex cord and removable, washable cover ensures longevity. Response is 20~20000 Hz, 32 ohms. 2 inch diameter with a 6.5 foot cord terminating to a 1/8" (3.5mm) stereo plug.

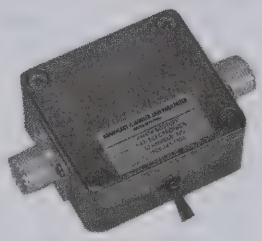
SSV *Order #5951* **$19.95**

VHF-FM

The **Par VHF-FM** is designed to help scanner listeners cope with interference from FM radio stations (88-108 MHz). The Par VHF-FM is a 3 pole notch filter designed to eliminate FM broadcast interference especially on the VHF air and VHF low bands. There is an adjustment at the base of the filter that determines the frequency of the center notch. It is factory preset to 98 MHz and normally does not require user adjustment. The housing has a female BNC for input and a male BNC for output for easy connection to most scanners. The bandpass is 0 to 1000 MHz with a notch band from 88 to 108 MHz. Minimum stopband attenuation is 24 dB and maximum stopband attenuation is 45 dB.

VHF-FM *Order #0098* **$67.95**

BCST-HPF & BCST-LPF



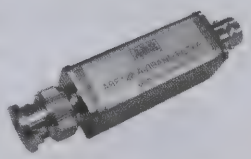
The **Par BCST-HPF** is designed to help shortwave listeners cope with interference from AM stations. This 7 pole elliptic high pass filter passes 1.8 to 200 MHz and notches out 0-1.7 MHz. The housing has SO-239 jacks for input and output and also has a toggle type bypass switch.

BCST-HPF *Order #4426* **$67.95**

The **Par BCST-LPF** is designed to help long wave DXers cope with interference from nearby AM stations above 540 kHz. Stop band is 540 kHz to 300 MHz. The housing has SO-239 jacks for input and output and has a bypass switch.

BCST-LPF *Order #1143* **$67.95**

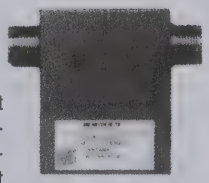
ABF128



The **AOR ABF128** is a receive bandpass filter, designed for serious VHF airband listeners. The addition of this filter to the antenna's signal path provides additional selectivity which enables the receiver's circuitry to better cope with strong interfering signals that can leak into the 108-136 MHz VHF air band. The ABF128 is not a preamp, but provides additional selectivity to any receiver's front end by reducing unwanted strong signals from reaching the receiver's first mixer stage and thus significantly improves reception in many situations. Out-of-band attenuation is typically 25 dB from 0.3 to 75 MHz and 20 dB from 190 to 400 MHz. A BNC female is fitted to the top of the ABF128 and a BNC male plug to the other end. You must remove the ABF128 when monitoring signals other than VHF airband.

ABF128 *Order #0915* **$79.95**

VHFDN152



The good news is that most new amateur 2 Meter transceivers have wideband receive. The bad news is that they are very susceptible to intermod from 152-154 MHz pagers. The **Par VHFDN152** notches out these frequencies while introducing only 0.3 dB insertion loss in the 2M band. May be left in-line for 2M/440 rigs too. SO-239 in/out.

VHFDN152 *Order #1898* **$59.98**

UHFBP

The **Par UHFBP** is a special bandpass filter designed for the military band listener. It passes 225 to 400 MHz, and blocks other frequencies. BNC female input and BNC female output.

UHFBP *Order #5029* **$78.95**

VHFBP

The **Par VHFBP** is a special bandpass filter designed for the air band listener. It passes 116 to 134 MHz, and blocks other frequencies. Unlike other aerocom bandpass filters, the VHFBP not only provides protection from VHF pagers, NOAA, 2 meter amateur signals etc, but also offers excellent attenuation of the FM broadcast band - the primary offender of aerocom signals. BNC female input and BNC male output.

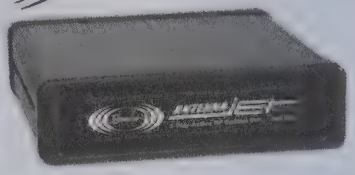
VHFBP *Order #2978* **$78.95**

VHFSYM152HT

The **Par VHF-SYM152HT** is a scanner intermod filter that has a notch band of 152 to 153 MHz and a useful passband of 0 to 1 GHz. The notch band covers the offensive pagers in this range. The notch depth is up to 38 dB. Typically, Par symmetrical filters have a 3dB bandwidth of ±1.5% or roughly 2.25 MHz for VHF HI filters. Designed for scanner use. BNC female input and BNC male output. 4 x 2 x 0.75 inches.

VHF-SYM152HT *Order #1813* **$68.98**

AAS300



The **Bonito AAS300** RadioJet 3-way active RF splitter is a great addition to your monitoring post. It allows you to simultaneously share one antenna with up to three receivers. Isolation is 70 dB. Insertion loss is only 1.5 dB. The rear panel features one BNC antenna input and three BNC jacks for output to your receivers. This device is powered from a USB power source (5 VDC at 50 mA). The USB power supply is not included, but a well shielded USB cable is supplied.

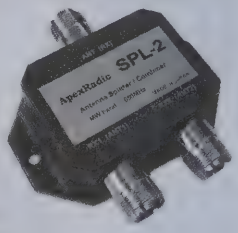
AAS300 *Order #6134* **$299.95**

ApexRadio HPF2050

The **Apex Radio HPF2050** high-pass filter is a useful tool for the serious shortwave listener. It is designed to block offensive signals below 2 MHz. It enables the receiver's circuitry to better cope with strong interfering signals that can leak into the shortwave band. The HPF2050 provides additional selectivity to any receiver's front-end by reducing a multitude of unwanted strong signals from reaching and saturating the receiver's first mixer stage. The result is less interference and improved reception. Has BNC input and output jacks. <2 dB insertion loss. Has a by-pass switch. 50 Ohm. For receive only!

HPF2050 *Order #6471* **$89.95**

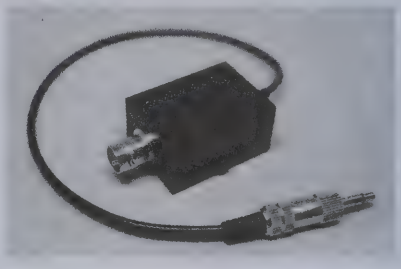
ApexRadio SPL-2



The **SPL-2** allows two shortwave receivers to be connected to one antenna without interaction and with minimal signal loss. It provides over 30 dB of isolation between receivers. It can also be used in reverse as an antenna combiner for two antennas to one receiver. For 1-650 MHz. This passive device uses three SO-239 jacks.

SPL-2 *Order #5043* **$119.95**

ApexRadio 35BNC-2



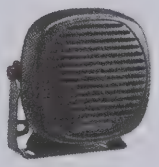
The **Apex 35BNC-2** allows an easy and efficient way to connect an external antenna to many of today's portable shortwave receivers that have a mini (3.5mm) antenna jack. This device also provides surge suppression to help protect the sensitive "front-ends" of portable radios. The input jack is a BNC female.

35BNC-2 *Order #5530* **$59.95**

ICOM SP-35

The **Icom SP-35** mobile speaker comes on a hinged mount. This allows the speaker to be supported from the top, bottom or back. The SP-35 has a 5 watts capacity with 7 watts peak. An audio cable wired to the rear panel terminates to a mono mini plug.
List $77.00 *Order #5874* **$59.95**

KENWOOD KES-5

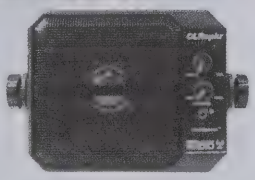


The rugged **Kenwood KES-5** mobile speaker meets MILSTD 810C/D/E/F specifications! This 4 ohm speaker has a maximum input power of 40 watts. The metal bracket may support the speaker from below or above. User must supply and install the appropriate radio plug. 5.125 x 5.125 x 3 inches.
List $61.00 *Order #1089* **$44.95**

KENWOOD SP-23

The **Kenwood SP-23** 8 ohm speaker features a metal cabinet with flip-out tilt bar. It has a 3 inch speaker element rated to 1 watt with a 300 to 5000 Hz response. The rear panel features two screw connections. This speaker includes a 3 foot audio cable. 4.8 x 3.75 x 9.25 inches 2.8 lbs.
List $119.00 *Order #0692* **$89.95**

West Mountain Radio CLRspkr



The **West Mountain Radio CLRspkr** uses the unique Clear-Speech® adaptive noise reduction circuit and 7.5 Watt RMS audio amplifier. Ideal for mobile radio operation. The DSP passes the voice and CW sounds, while attenuating noise, such as hum, hiss, whistles, static. It removes hets, ignition noise, lightning crashes, power line noise and hum. The process is dynamic and changes with the interference and the signal. Its audio cable plugs into the speaker output of your radio. With front panel mini ear jack. Freq.response is 300 to 3400 Hz. Requires 9 to 18 VDC. 5.5 x 4.3 x 2.5".
CLRspkr *Order #4964* **$209.95**

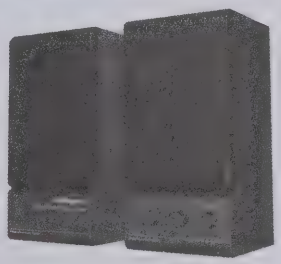
717

The **Workman 717** has a 2¾ inch 8 ohm 5 W speaker . The adjustable bracket holds speaker from above or below. Has 6 foot cable to 1/8" mini plug. 3 x 2.75 x 2".
List $14.95 *Order #6311* **$12.95**

ICOM SP-23

The **Icom SP-23** speaker matches many Icom receivers and transceivers. It is 8 ohms and is rated at 2 watts [4 watts maximum]. The SP-23 has four separate audio network filters [HPF1 500 Hz, HPF2 250 Hz, LPF1 3000 Hz, LPF2 1000 Hz]. This allows you to tailor the frequency response of the speaker. Input A or B may be selected so two radios may share this speaker. There are two 3.5mm mono audio input jacks on the back panel. There is a speaker on-off switch and a ¼" headphone jack on the front panel. The bottom panel of the speaker features a pull-out tilt stand if you wish to angle the speaker. A single audio cable is supplied with a mono mini plug at both ends. Metal construction 5.75 x 4.25 x 11.2 inches 3.6 lbs.
List $330.00 *Order #1696* **$239.95**

West Mountain Radio COMspkr

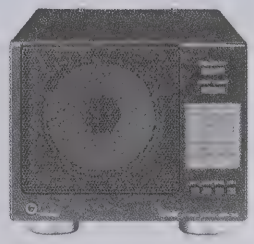


The **West Mountain Radio COMspkr** is expressly designed for use with the PC in your ham shack. The COMspkr is an RF proof amplified stereo computer speaker systesolve designed to eliminate interference problems. The audio quality is good for music or voice with 3 watts per channel. May used in mono or stereo arrangements with a radio, computer or MP3 player. These speakers require 120 VAC. Each is 4.2 x 8.4 x 5 inches.
COMspkr *Order #5042* **$39.95**

Atlas AP-15

The **Atlas Sound AP-15** is an indoor/outdoor public address speaker. It is very efficient and can be driven by your mobile radio to provide a truly "big" sound. The quality speaker comes with an adjustable metal bracket that can rotate 360° and elevate up to 130°. 8 ohms, 15 watts and 400-14000 Hz response. 8 x 8.75 x 9.5" 3.6 lbs. Brand new, but in slightly blemished boxes.
List $90.00 *Order #6774* **$34.98**

ICOM SP-34

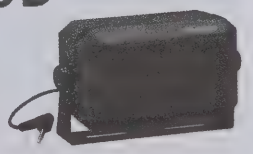


The **Icom SP-34** speaker is designed for use with a wide variety of communication equipment. The SP-34 is equipped with four audio network filters for maximum control of the audio characteristics of received signals [cutoffs: HPF1 300 Hz, HPF2 600 Hz, LPF1 2400 Hz, LPF2 800 Hz]. The SP-34 rear panel features two audio 3.5mm input jacks. Input A or B may be selected from a switch on the front of the speaker. There is also a Speaker On/Off switch and a post filtration ¼ inch headphone jack on the front panel. Icom includes two 3.5 mm mono audio cables. Frequency response: 100 to 9000 Hz. Five inch, 8 ohm speaker. 7.875 x 5.875 x 13.375 inches 6.6 lbs.
List $465.00 *Order #5917* **$319.95**

YAESU SP-8

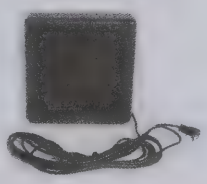
The **Yaesu SP-8** speaker features both a ¼ inch headphone jack and a 3.5mm mini jack on the front panel. Front panel switches for Input A or B and 4 modes: Mute, Manual, SSB, CW. Plus a 3 position Low Cut Filter knob and 4 position High Cut Filter knob. Rear panel has RCA input jacks A and B plus a Line Out jack. With one audio cable (RCA to 3.5mm). Tilt adjustable front feet.
List $250.00 *Order #1789* **$189.95**

KENWOOD KES-3



The compact **Kenwood KES-3S** mobile speaker is constructed on a swivel stand. This 4 ohm speaker can handle up to 5 watts. Supplied with a speaker cable that terminates to a mini (3.5mm) mono plug. Size: 4.5" x 2.7" x 2.4" 0.8 lbs.
List $44.25 *Order #6344* **$34.95**

726



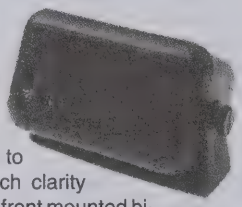
The **Workman 726** has a 4¾ inch speaker element. The supplied adjustable bracket mounts on the rear of the speaker. It features a 10 foot cable to a right angle 1/8" mono mini plug.
List $27.00 *Order #6514* **$19.95**

HEAR IT MODULE

The **Gap *Hear It* Module** is an in-line filter with up to -20dB of noise attenuation selectable at 8 levels. It features a sensitivity control knob. Audio input and output is via mini jacks or RCA phone and there is a headphone jack. Requires 12 - 24 VDC at 500 mA. Supplied with a 3.5-3.5mm audio cable and fused power leads. No built-in speaker. Made in England. 6.75 x 3.325 x 1.375" 1 lb.

IN	*Order #4048*	**$214.95**

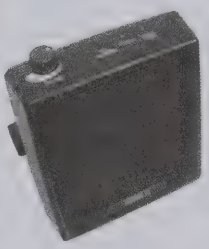
HEAR IT



The **Gap *Hear It*** is a compact speaker with digital signal processing that reduces noise to improve the signal to noise ratio and speech clarity for AM, FM or SSB. A front mounted bi-color LED shows you when the speaker is drawing power (red) and when it is processing (green). The rear panel features a rotary switch used to set the 8 levels of noise cancelling. It also has the DC input jack for the required 12-28 VDC. With audio cable to mini plug. 4.5 x 3.8 x 2.3". MkIII version.

HIS	*Order #0749*	**$167.95**

DSPKR



The **Gap (bhi) DSPKR** features a 10 Watt RMS amplifier for superb audio that is coupled with fully adaptive noise cancelling 9 - 24dB via 7 user selectable noise cancelling levels. Everything is controlled by simple pushbutton operation. A volume control is featured on top. There is even a sleep mode to conserve battery power. It can handle up to 6 watts of audio input. Auxiliary output jack for headphones or loudspeaker (neither included). Supplied with 3.5mm audio input cable and fused DC power cable to 2.1mm plug. Requires 10 - 16 VDC (1 A min. 2 A max). 5.32 x 5.15 x 3.35" 30 ounces.

List $199.00	*Order #1243*	**$189.95**

MFJ-722B

The **MFJ-722B** is a SSB/CW tunable 70dB notch audio filter. It has an eight pole active IC filter and uses cascaded low-Q stages. In the CW mode, four bandwidths are featured: 80, 110, 150 and 180 Hz. The center frequency is 450 Hz up to 15 dB. Requires 12 VDC. MFJ-1312D suggested.

MFJ-722B	*Order #5801*	**$89.95**
MFJ-1312D	*Order #2433*	**$15.95**

West Mountain Radio CLRdsp

The latest **West Mountain Radio CLRdsp** installs between your radio and your station's speaker. It features a ClearSpeech® DSP noise reduction processor with 7 watt amplifier. It has knobs for tone, volume and filtering amount. A red LED indicates overload "clipping". The front panel has a 1/8 inch headphone jack (settable to mono or stereo). The rear panel has jacks for: 12 VDC DC input, 1/8 inch mono audio input jack, 1/8 inch mono external speaker jack, low level input jack for portable shortwave receivers and line level output jack for connection to a computer sound card or for recording. 4.25 x 1.25 x 5.75 inches. The CLRdsp comes with a 6 foot power cable with Powerpole® connectors and two 6 foot audio cables with 1/8 inch stereo plugs at each end. Requires 12 VDC at 1.1 Amps.

CLR/dsp	*Order #2225*	**$199.95**

MFJ-784B

The **MFJ-784B** tunable DSP audio filter can simultaneously eliminate heterodynes, reduce noise *and* reduce interference in nearly any mode. You get 5 tunable DSP filters, plus 10 programmable filters. The automatic notch zaps hets, adaptive noise reduction reduces fatigue and the highpass-lowpass and tunable bandpass filters give you effective tools to dig out the weak ones. Requires 10-16 VDC @500mA (MFJ-1312D). 9.5 x 2.5 x 6".

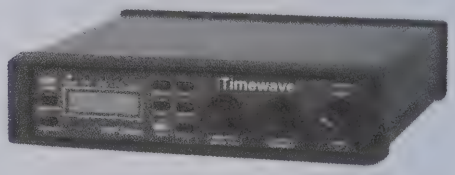
MFJ-784B	*Order #3470*	**$249.95**
MFJ-1312D	*Order #2433*	**$15.95**

MFJ-781

The MFJ-781 is an external DSP filter for any TNC or Multimode data controller. Copy signals buried in noise and QRM - signals you can't even hear! MFJ-781 gives you an arsenal of 100 incredibly sharp No-Ring linear phase FIR filters. This filter plugs between radio and TNC (RCA phono jacks). Input/output level controls. Accurate input level indicator. AGC, on/off bypass switch, built-in automatic self test. This item requires 10-16 VDC @500 mA. The optional MFJ-1312D power supply is suggested. 4.5 x 2.2 x 6 inches.

MFJ-781	*Order #3467*	**$139.95**
MFJ-1312D	*Order #2433*	**$15.95**

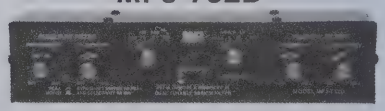
TIMEWAVE DSP-599zx



The **Timewave DSP-599zx** represents the latest generation of DSP filter, incorporating the newest high speed CPU. The new LCD display, push buttons and Visible Memory let you see the exact settings of the filters. The DSP-599zx works in all modes. It is a dream for the non-voice modes. Data modes supported in the filter are RTTY, AMTOR, PACTOR, G-TOR, HF Packet, SSTV, WeFax, SITOR and Clover. An added benefit of the powerful DSP processor and LCD display is a special "Test Instrument" mode. Functions such as audio sine wave generator, audio millivoltmeter (20 Hz-10 kHz) and CTCSS encoder/decoder are supported. Requires 12-16 VDC at 1A or optional AC-8. 7.6 x 1.9 x 8.5" 2 lbs. This is a well built, quality instrument.

DSP-599zx	*Order #3630*	**$399.95**
AC-8	*Order #1754*	**$22.95**

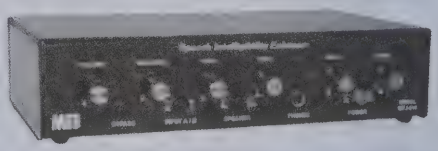
MFJ-752D



The **MFJ-752D** *Signal Enhancer II* is a dual tunable audio filter suitable for amateur and SWL use. The primary filter is a two section, four-pole variable filter with Peak, Notch, Low Pass and High Pass functions. There is also an auxiliary filter which is a single section two- pole Peak and Notch filter which allows you to remove interference *while* enhancing the desired signal. The filter is bypassed when the unit is off. The rear panel has dual, selectable audio input jacks (RCA phono) and speaker out (RCA phono) plus a 3.5mm mini headphone jack. Requires 9-15 VDC @300 mA or optional MFJ-1312D. 9.5 x 2.5 x 4.5".

MFJ-752D	*Order #5640*	**$109.95**
MFJ-1312D	*Order #2433*	**$15.95**

MFJ-616



The versatile **MFJ-616** filter increases speech intelligibility. It features two monolithic 2.5 watt IC amps to drive hi-fidelity speakers (not provided). Eliminate hum, buzzes, poor frequency response, low power. Works with SSB, FM, AM --- any voice mode. The front panel has: Volume, Balance, 300 Hz, 600 Hz, 1200 Hz and 2400 Hz, Bypass, Input A/B, Speaker On/Off, Power and a ¼ inch stereo headphone jack. Back panel has RCA input A and B. 10 x 2.5 x 6 inches. Requires 13.8 VDC at 1.5A or optional MFJ-1316.

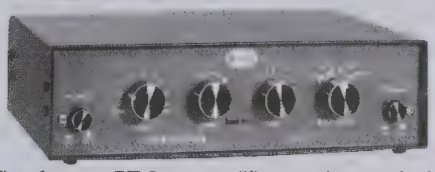
MFJ-616	*Order #2377*	**$174.95**
MFJ-1316	*Order #1469*	**$21.95**

ApexRadio 512APB

The **Apex Radio 512APB** is a receive preselector covering all medium wave and shortwave frequencies. The top panel has BNC input and output jacks. This device is designed for indoor use and for receive only.
This new item was not yet available as of press time. Specifications and pricing have not been released yet. Please call or check our website for updated information.

512APB *Order #5512* **T.B.A.**

AMECO PT-3



The **Ameco PT-3** preamplifier employs a dual-gate FET providing a low noise figure, thereby improving the weak signal performance of most receivers. Image and spurious rejection are greatly improved. Gain is in excess of 20 dB. Covers 1.8 to 54 MHz. The PT-3 can be used with a receiver or a transceiver (under 350 watts). The input and output are 50 ohm SO-239 jacks to match most antennas and radios. Operates on 12 VDC or with optional P12T AC adapter.

PT-3 *Order #2158* **$169.95**
P12T *Order #0167* **$14.95**

TIMEWAVE TECHNOLOGY INC ANC-4

The **Timewave ANC-4** is an RF device designed to provide cancellation of locally generated noise from signals received by a primary antenna. The unit is employed right at the antenna connector of the receiver to cancel noise from power lines, computers, TVs or nearby equipment. Controls allow adjustment of both phase and magnitude, providing deep cancellation of the offending noise. May also be used with transceivers under 150 watts. Range: 0.1 - 80 MHz. Uses SO-239 for I/O. Requires 12 VDC (or optional AC-8 power supply *#1754* $22.95). 1.7 x 6 x 4.3 inches.

ANC-4 *Order #0094* **$199.95**

MFJ-956

This LW, MW and SW preselector tuner lets you boost your favorite stations while rejecting images, intermod and other phantom signals on your shortwave receiver. Operates from .15 to 30 MHz. Has bypass and ground positions. SO-239 accepts PL-259 connectors. 3 x 2 x 4 inches. Black.

MFJ-956 *Order #2964* **$64.95**

MFJ-16010

This random wire tuner will match any wire antenna to any receiver or HF transceiver (160-10 Meters up to 200W). This device will match the impedance of your radio to the impedance of the antenna. Standard SO-239 jacks are provided for input and output. Only 3 x 2 x 4 inches.

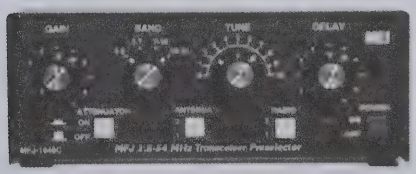
MFJ-16010 *Order #1329* **$64.95**

MFJ-1026

The **MFJ-1026** turns your antenna into a directional phased array. The 60 dB null wipes out interference and noise, before it gets into your receiver. This device works 1.8-30 MHz in all modes including AM, CW, SSB, FM and RTTY. You can instantly change from nulling to peaking a signal at a push of a button and improve weak signal reception. You can dig out a weak station hidden under a powerful one on the same frequency. The MFJ-1026 plugs between your antenna and receiver (or transceiver). If used with a transceiver, the RF sense T/R switch bypasses during transmit. Requires 12 VDC or optional MFJ-1312D. 6.5 x 1.5 x 6.25 inches.
The **MFJ-1025** is the same as the MFJ-1026, but without the built-in active antenna.

MFJ-1026 *Order #3541* **$179.95**
MFJ-1025 *Order #3542* **$164.95**
MFJ-1312D *Order #2433* **$15.95**

MFJ-1040C



This preselector boosts signals from 1 - 54 MHz. It utilizes dual gate MOSFET, bipolar transistors for low noise and high gain. Push-button switches provide for two receivers, two antennas, 20 dB attenuator and ON/BYPASS. Controls for Delay, Gain, Band and Tune. It has a relay that automatically bypasses the amplifier when transmitting (up to 125W). SO-239 rear panel jacks provide for the use of PL-259 connectors. 6 x 2 x 6 inches. Requires 9-12 VDC (see MFJ-1312D).

MFJ-1040C *Order #4110* **$109.95**
MFJ-1312D *Order #2433* **$15.95**

MFJ-959C

The **MFJ-959C** receive-only antenna tuner covers 1.8 to 30 MHz and features a low noise 20 dB preamp to bring out weak stations and matches the antenna to the receiver for maximum signal strength. It accommodates up to two antennas and two receivers. You can select tuner, tuner with preamp, tuner with 20 dB attenuator or bypass. Rear panel jacks provide for the use of PL-259 connectors. 6.5 x 2.5 x 4 inches. Requires 9-18 VDC power supply (see MFJ-1312D).

MFJ-959C *Order #2574* **$109.95**
MFJ-1312D *Order #2433* **$15.95**

MFJ-1046

The **MFJ-1046** passive (non-amplified), receive-only preselector covers 1.6 to 33 MHz in six bands. A bypass button is featured for times when you do not wish to use the preselector function. SO-239 jacks are used for input and output. Black metal construction. A coaxial jumper cable to your receiver will be required. 7.5 x 2.5 x 3.25 inches.

MFJ-1046 *Order #3736* **$109.95**

MFJ-1048

Preassembled cables to connect tuners and preamps are listed on page 46 of this catalog. The most commonly used cables are *#2579* and *#2580*

The **MFJ-1048** passive (non-amplified) preselector covers 1.6 to 33 MHz in six bands. Unlike the MFJ-1046, the MFJ-1048 can be used for receive *and* transmit. An RF sense transmit/receive switch with adjustable time delay automatically bypasses your MFJ-1048 when you transmit. It also has a PTT line. SO-239 jacks are used for input and output. Black metal construction. A coaxial jumper cable to your radio will be required. 7.5 x 2.5 x 3.25 inches.

MFJ-1048 *Order #3749* **$119.98**

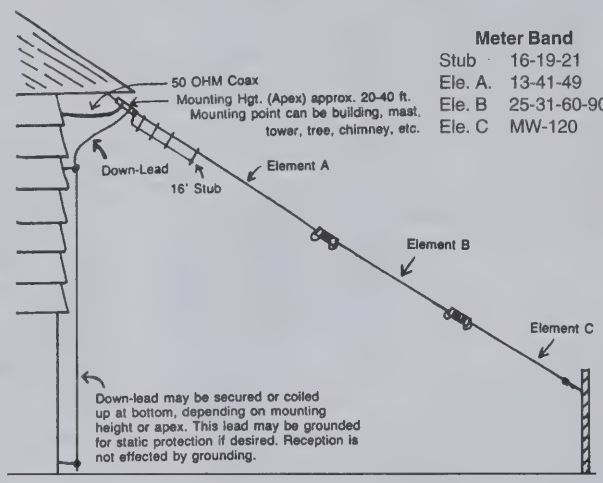
ALPHA DELTA

DX-SWL SLOPER

The **Alpha Delta DX-SWL** Sloper antenna offers exceptional features and performance! Hams have been using slopers for years because they offer some unique advantages not found in other antennas. Sloper (or slant) antennas require only one elevated support (25 feet or higher) while dipoles require two elevated supports. The DX-SWL Sloper offers coverage of the 90 and 120 meter bands, bands often "forgotten" by other antennas; plus medium wave too! The full-size DX-SWL covers:

Medium Wave .5-1.6 MHz.	120 Meters 2.3-2.5 MHz.	90 Meters 3.2-3.5 MHz.	60 Meters 4.7-5.0 MHz.
49 Meters 5.9-6.2 MHz.	41 Meters 7.1-7.3 MHz.	31 Meters 9.5-9.9 MHz.	25 Meters 11.6-12 MHz.
21 Meters 13.6-13.8 MHz.	19 Meters 15.1-15.6 MHz.	16 Meters 17.5-17.9 MHz.	13 Meters 21.4-21.8 MHz.

The overall length of the slope wire is only 60 feet long. A single 50 ohm feed point (for PL259) at the apex of the antenna is provided for maximum DX reception. (User supplies their own 50 ohm coaxial lead-in). The DX-SWL is fully assembled for easy installation. It requires no adjustments or "trimming". This American made antenna has stainless steel hardware for long life and utilizes low-Q RF choke-resonators for efficient multiband frequency selection. For quality of construction, ease of erection and maximum performance, we think the Alpha-Delta DX-SWL is a great value. It is our best selling shortwave antenna.



Where less space is available, consider the **DX-SWL-S** shortened version - only 40 feet long covering the 90 through 13 meter bands.

Alpha Delta DX-SWL (MW+120-13m) 60 ft.
Order #0799 ..... $**129.95**

Alpha Delta DX-SWL-S (90-13m) 40 ft.
Order #2533 ..... $**128.95**

See page 46 for optional preassembled lead-in cables.

ALPHA DELTA

DX ULTRA

The **Alpha Delta DX-ULTRA** is specifically designed for high performance, *full spectrum* shortwave coverage plus MW. Absolutely remarkable low-noise, high-gain results are achieved as a result of the tapered wing design and ISO-RES inductors and parallel wire elements. The Delta-C center insulator with built-in SEP Arc-Plug static protectors, provides protection for sensitive receiver components. This antenna must be center fed with a PL-259 type plug. Fully assembled - no cutting or soldering required.

Alpha Delta DX-Ultra (0.5-30 MHz) 80 foot
Order #3377 ..... $**159.95**

Support poles shown, not included. Please see page 46 for optional preassembled coax lead-in cables.

COAX-SEAL

SEALANT

Use **Coax-Seal®** to protect any outdoor connection or connector. Coax-Seal is superior to electrical tape or vinyl sealant for moisture protection. The **104** consumer box features one roll which is 60 inches long and ½ inch wide. It will protect 9 connectors.

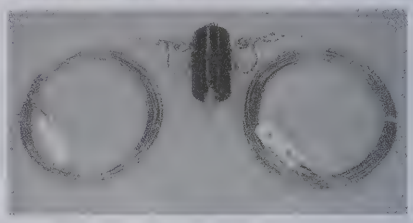
Coax-Seal 104 *Order #1194* $**2.99**

The **105** commercial box features four rolls, each of which is 12 feet long and ½ inch wide.
Coax-Seal 105 *Order #4960* $**19.95**

The **106** commercial box features four rolls, each of which is 12 feet long and 1 inch wide.
Coax-Seal 106 *Order #4961* $**24.95**

Princeton

Sky Wire



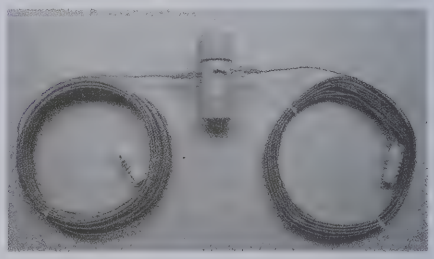
The **Princeton SkyWire** is a 66 foot, off center fed SWL dipole with 22 feet on one side and 44 feet on the other. It provides excellent receive performance from the AM broadcast band to 30 MHz. While its rugged construction is well suited for the harshest environments, it is equally at home indoors in an attic. The wire may be bent, zig-zaged to accommodate limited space installations. Rope and coax cable are *not* included.
SkyWire *Order #5155* $**46.95**

Sky Wave

The **Princeton SkyWave** is a 50 foot long, end-fed shortwave listener's antenna. It features dog-bones insulators at both ends. It is fed with a 35 foot, 26 gauge plastic coated lead-in wire. It is designed to perform well on the AM band and shortwave from 3 to 30 MHz. Rope is not included.
SkyWave *Order #5148* $**34.95**

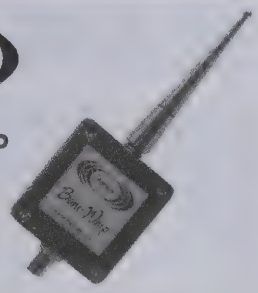
HY POWER

SWL-OCF

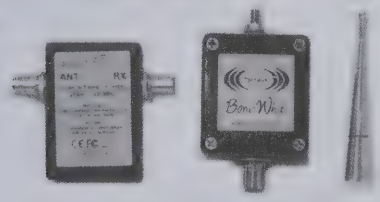


The **Hy Power SWL-OCF** "Off Center Fed" antenna covers 500 kHz to 60 MHz. It is made from 136 feet of 12 gauge insulated wire for strength and longevity. The feed network is placed 45 feet from one end of the antenna. The coaxial cable for this antenna (not supplied) is coupled through an inductive matching transformer which will place your coax at DC ground provided you make a good ground connection to the shield of your coaxial cable. For best performance you should mount this antenna at least 25 feet above ground. You can bend the antenna's legs to fit your property if needed. It can be sloped from a tree down to a fence post, hung flat between two high tie points or even as an inverted vee. This antenna requires the following items which are not included: rope, lightning arrestor and coaxial lead-in cable.
SWL-OCF *Order #1496* $**99.95**

BONI-WHIP



The **Bonito Boni-Whip** antenna receives from 20 kHz to 300 MHz with impressive performance, despite its diminutive size. Even on very low frequencies the Boni-Whip produces excellent reception results. It can be used beginning at 20 kHz and is a good choice for listeners who are interested in low frequencies. Bonito extended the range to 300 MHz for VHF enthusiasts. Because of its small size, the antenna can be erected inconspicuously. The antenna system is comprised of three elements (shown left to right):

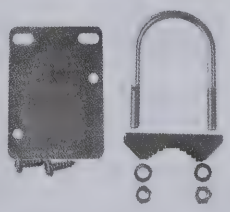


- ✔ Coaxial Power Inserter. Has jacks for:
  - BNC Antenna (to Preamp Box)
  - BNC Receiver (to your receiver)
  - 12 VDC 200mA max (2.1/5.1 mm)
- ✔ Outdoor Preamp Box. Has jacks for:
  - BNC Input from Power Inserter
  - Threaded stud for antenna element.
- ✔ Antenna Element (only 4 inches tall!)
  - Threaded base

The user must supply the BNC to BNC 50 ohm coaxial cable to connect from the Coaxial Power Inserter to the receiver and the cable from the Power Inserter to the Outdoor Preamp box. The user must also supply the 12 VDC power cord which requires a 2.1/5.1 mm DC power plug (*#0821* 99¢). Requires 12-15 VDC 200 mA [+]. Made in Germany.

Order #2531 **$139.95**

MAST BRKT



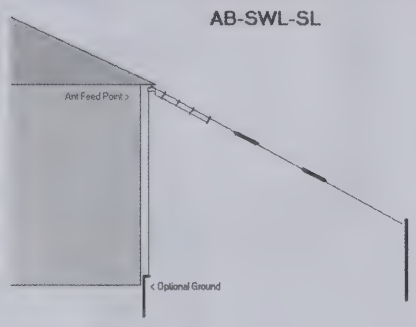
This bracket is made of V2A stainless steel, made in Germany and fits the Boni-Whip, GigActiv and the MegaLoop ML052, ML060 or ML200. Includes: mounting plate, mini claw-clip (40mm), U-bolts M6 for 40mm (1.5 inch) mast, 2x M6 nut, 2x snap ring and 2x V2A screw.

MAST BRKT *Order #6505* **$19.95**

COAX LEAD-IN CABLE

Most outdoor shortwave wire antennas have an SO-239 jack, as do most communications receivers. You will need a coax cable (RG-8X type most popular) with a PL-259 plug at each end. See page 46. If your receiver has another type of jack such as mini or BNC, please see *RF adapters* on page 45.

HY POWER AB-SWL-SL



The **Hy-Power AB-SWL-SL** shortwave sloper is a top quality receiving antenna for these shortwave broadcast bands: 160, 120, 90, 60, 49, 41, 31, 25, 19, 16, 13, and 11 meters plus the AM broadcast band. This antenna is 62 feet long and made with 12 gauge insulated wire using all stainless steel electrical hardware. The 12g wire adds strength to the antenna and the insulation gives the antenna UV protection for longevity. There is a 36 foot counterpoise drop wire. It features both an SO-239 jack to accept coaxial lead-in *or* dual spade-lug terminals to accept twinlead. The AB-SWL-SL is fully assembled. Just add your lead-in cable and rope. The ground rod shown above is not included.

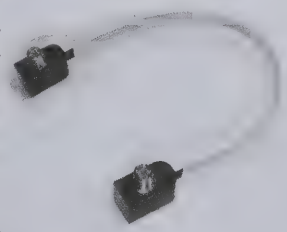
AB-SWL-SL *Order #5062* **$89.95**

KAITO ELECTRONICS INC. T1

The **Kaito T1** portable "roll-up" shortwave antenna will improve the reception of any portable worldband receiver. The antenna wire may be extended up to 23 feet. The ANT-60 terminates with a mini-plug (3.5 mm). If your receiver does not have a mini external antenna jack, an adapter plug is provided to clip the T1 to your radio's whip.

T-1 *Order #2464* **$9.95**

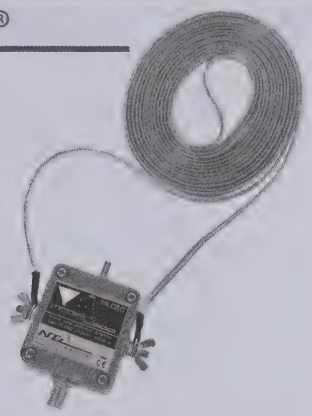
COMET CTC-50M



The **Comet CTC-50M** window/door feed-thru jumper allows you to get the antenna coax into the radio room without drilling holes in the wall or leaving a window/door open. Close the window and screen without damaging the coax! For use from 0-1300 MHz. Loss: DC-500MHz .5dB, 500-900MHz 1.3dB, 900-1300MHz 1.8dB. 15.75".

CTC-50M *Order #2750* **$45.95**

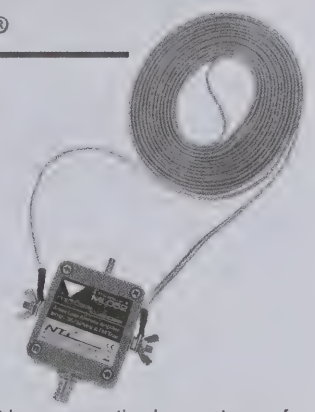
NTi® ML060



The **NTi ML060** is a wideband active receive loop antenna that effectively covers 9 kHz to 60 MHz. The NTi CPI1000 power inserter is included. This inserter accepts the 11-15 VDC power that will travel up the coax cable to power the antenna. The inserter features a BNC antenna jack for coax from the antenna element and a BNC jack output to the receiver. It features a jack for DC power input 11-15 VDC (max 120 mA). The user must provide: DC power source, BNC cable from receiver to power inserter and BNC cable from power inserter to the preamp. Made in Germany.

NTi ML060 *Order #6427* **$299.95**

NTi® ML052



The **NTi ML052** is a new, active loop antenna for the 9 kHz to 52 MHz range. This type of antenna is especially suitable in difficult receiving conditions caused by electrical interferences in the near-field. It can also be used as an indoor antenna. Based on the proven technology of the MegaLoop 200 platform, an additional low pass filter with an extra FM-band-stop was integrated at the input. Thus, the ML052 is especially suited for operation near strong FM stations and higher frequencies, where, because of its broad band capacity, the ML200 could be overloaded near strong FM stations. The NTi CPI1000 power inserter is included. This inserter accepts the 11-15 VDC power that will travel up the coax cable to power the antenna. The inserter features a BNC antenna jack for coax from the antenna element and a BNC jack output to the receiver. It features a jack for DC power input 11-15 VDC (max 120 mA). The user must provide: DC power source, BNC cable from receiver to power inserter and BNC cable from power inserter to the preamp. Made in Germany.

NTi ML052 *Order #4494* **$309.95**

LF ENGINEERING CO.

H-900

The **LF Engineering H-900** *Gain Probe* active receive antenna covers 10 kHz to 60 MHz. The active E-probe antenna consists of impedance matching electronics and amplifier with a maximum linear output of 16 dBm. The H-900 has high E field sensitivity for its compact size with the advantage of good BC and spurious intermodulation rejection. The antenna is compact, totally sealed and ESD suppression treated. The antenna is omni directional allowing for various installation configurations and for use as a portable antenna. The probe is waterproof and UV resistant. Requires 12 VDC at 70 mA.

Your H-900 system consists of:
- ✔ Antenna probe element.
- ✔ 50 feet of RG-174 coax (attached to probe).
- ✔ AC adapter providing 12 VDC to 2.5mm plug.
- ✔ Adjustable mounting clamp.
- ✔ Directions.

This antenna is not for transmit. Made in U.S.A.

H-900 *Order #4900* **$229.95**

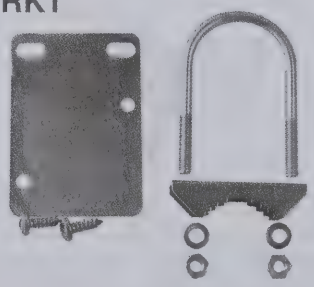
NTi®

GA3005

The **NTi GA3005** is an extreme wideband active receive antenna that effectively covers 9 kHz to 3 GHz. The NTi CPI3000DP power inserter (shown at right) is included. This inserter accepts the DC power that will travel up the coax cable to power the active antenna element. This device features a BNC antenna jack for coax from the antenna element and a BNC jack output to the receiver. It features a USB-B jack for DC power input 5.5-15 VDC (max 120 mA). This antenna system is supplied with a USB-A to USB-B power cable. This will facilitate operation from a PC USB power source. The user must provide: DC power source, BNC cable from receiver to power inserter and BNC cable from power inserter to the antenna. Made in Germany.

NTi GA3005 *Order #1343* **$399.95**

MAST BRKT

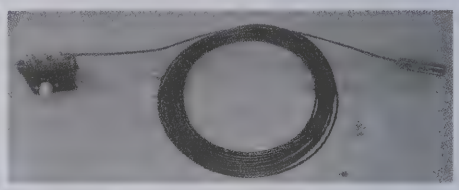


This bracket is made of V2A stainless steel, made in Germany and fits the Boni-Whip, GigActiv and the MegaLoop ML052, ML060 or ML200. Includes: mounting plate, mini claw-clip (40mm), U-bolts M6 for 40mm (1.5 inch) mast, 2x M6 nut, 2x snap ring and 2x V2A screw.

MAST BRKT *Order #6505* **$19.95**

LNR PRECISION ENDFEDZ®

EF-SWL



The **LNR Precision Par EF-SWL** is an end-fed short wave antenna optimally designed for 1-30 MHz reception. The radiator is 45 feet of genuine #18 gauge black polyethylene coated Flex-Weave wire. This material is very strong yet can easily be coiled like a rope for portable work. The UV resistant matchbox houses a wideband 9:1 transformer wound on a binocular core. Unlike other transformers, external stainless studs on the matchbox allow the user to configure the primary and secondary grounds for best noise reduction at their particular location. Output is via a silver/Teflon SO239 UHF connector. The radiator also attaches via a stainless stud allowing it to be removed, or replaced with a different length radiator for experimental purposes. The newly redesigned snag-proof insulators are very strong. The included manual shows typical radiation patterns for selected frequencies throughout the HF spectrum. For receive only.

Par EF-SWL *Order #2205* **$72.95**

SANGEAN

ANT-60

The **Sangean ANT-60** portable "roll-up" shortwave antenna will improve the reception of any portable worldband receiver. The antenna wire may be extended up to 23 feet. The ANT-60 terminates with a mini-plug (3.5 mm). If your receiver does not have a mini external antenna jack, an adapter plug is provided to clip the ANT-60 to your radio's whip.

ANT-60 *Order #3184* **$12.95**

ApexRadio

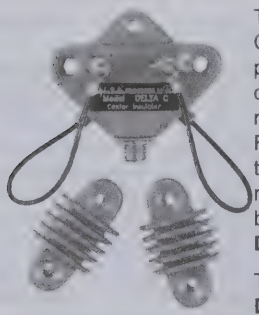
MW115

The **Apex Radio MW115** is a *very* compact portable active receive antenna for 500 kHz to 30 MHz. Output to the receiver is a BNC jack. Supplied with a 39" BNC to BNC cable. Operates from two AAA batteries (not included). 2.75 x 4.6 x 0.8" 6 oz.

MW115 *Order #6353* **Call**

ALPHA DELTA

DELTA-C



The **Alpha Delta Delta-C** antenna hardware kit consists of: 1 Delta-C Center Insulator, antenna connecting hardware, 1 SEP Arc-Plug™ static protector (installed in Delta-C) and 2 Delta-CIN end insulators. This kit does *not* include the antenna wire or rope. The Delta-C components are molded of high impact UV and RF resistant materials called Deltalloy™. For proper operation of the SEP Arc-Plug it will be necessary to ground the coax shield at the entrance to the building. Your radio may already meet this requirement if your coax shield circuity is grounded to a ground bus, strap, or ground rod through the connector of your coax.

Delta-C Kit *Order #0297* **$29.95**

The **Delta-CIN** end insulators are also sold individually.

Delta-CIN *Order #2420* **$2.95**

UNIVERSAL BUYS RADIOS

Do you have a radio you are not using? Please call, email or write and tell us what you have to sell. We can provide a quote, subject to inspection.

MFJ-1020C

The **MFJ-1020C** indoor active antenna offers good performance from a very compact package. This antenna system can be set directly on your desk and covers 300 kHz to 40 MHz in five bands. With built-in 20 inch (50 cm) telescopic antenna. An auxiliary antenna jack is provided. When it is used the MFJ-1020C functions as a preselector. Front controls include gain, band select, tune and On/Bypass. A red LED indicates power ON. The input jack and output jack are both SO-239 type (to accept PL259). Black metal case 6.4 x 2.5 x 3.3 inches. Requires a 9 volt battery or a 12 VDC power supply such as the MFJ-1312D.

MFJ-1020C	*Order #1413*	$89.95
MFJ-1312D	*Order #2433*	$15.95

MFJ-1886

The **MFJ-1886** receive loop gives you tremendous power to copy weak stations through impossibly strong levels of QRN natural noise or QRM man made noise. Covering AM broadcast through 30 MHz and beyond, its superbly directive element and bulletproof low-noise preamplifier dig out buried signals normally lost when using wire antennas. At only 2.5 pounds and measuring 36-inches in diameter, the aluminum weather proof design installs easily on a tripod or handheld mast for fixed or portable use. Supplied with MFJ-4117 Bias-T and MFJ-1312D AC adapter, or may be run from 12 VDC. You supply 1.25" OD mast, 50-ohm coax with PL-259 connectors to connect up the loop plus a short PL-259 jumper to connect your radio to the Bias-T.

List $249.95 *Order #6659* $229.95

We can quote shipping on this over-sized item.

MFJ-16C

Single glazed antenna wire insulator,

MFJ-16C *Order #3250* $0.89

MFJ-1024

The **MFJ-1024** is a sensitive outdoor active antenna covering 50 kHz to 30 MHz. The outdoor unit consists of a 54" telescopic whip & amplifier module (3 x 4 x 4 inches). It is connected to the indoor control unit (6 x 2 x 5 inches) by a supplied 50 foot RG-58 coaxial cable. The control unit features a 20 dB attenuator and a gain control to prevent receiver overload. A receiver switch selects between two receivers (A/B) and an antenna switch selects an auxiliary antenna. A red LED indicates power-on. The auxiliary input and output jacks are RCA phono type. Requires 12 VDC power supply such as the MFJ-1312D.

MFJ-1024	*Order #1132*	$144.95
MFJ-1312D	*Order #2433*	$15.95

MFJ-1022

The compact **MFJ-1022** wideband indoor active antenna boasts coverage from 300 kHz to 200 MHz. It includes a detachable 20 inch antenna. The output jack is an SO-239. A red LED is on the front panel to remind you that the antenna is on. This device requires a 9 volt battery (not supplied) or a 9-18 VDC external power supply, such as the MFJ-1312D.

MFJ-1022	*Order #3109*	$64.95
MFJ-1312D	*Order #2433*	$15.95

■ Lightning surge protectors are recommended for outdoor antennas. Please see page 39.

ApexRadio

303WA-2

The **Apex Radio 303WA-2** is a quality passive receiving antenna providing coverage from 30 kHz to 30 MHz. The antenna is designed for areas where space is a problem or when an unobtrusive installation is essential. The small size and relatively lightweight design is ideal for installation in a confined space such as apartment balcony. Since the 303WA-2 is passive it provides superior low noise performance, free of cross and inter-modulations. The 303WA-2 has a "U" bolt metal fitting that will require a short stub mast (not supplied). The mast diameter can be 0.4 to 1.9 inches. The antenna has a total height of 6 feet. It comes with a preassembled 30 foot cable with a PL-259 plug to connect to the antenna base and a BNC plug for your radio.

Order #1026 $129.95

SCREW-IN INSULATORS

There is no doubt stringing a wire antenna *outside* of the house is better than *inside.* But that is not always possible. Restrictions increasingly force us to string wires in attics, crawl spaces, under eaves or even in closets. These 3.5" screw-in insulators make the job easier. Sold in package of 4.

530 4-PAK *Order #6834* $4.95

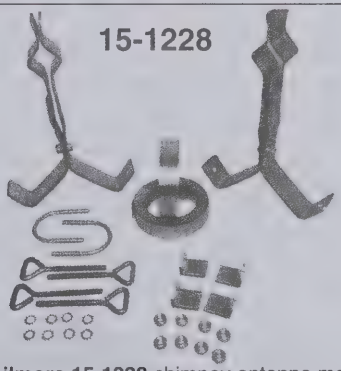
Philmore

15-9033

The **Philmore 15-9033** antenna wall mount is made of 12 gauge galvanized steel and accepts mast up to 1.25" (OD). Provides 3.75" clearance. Includes hardware shown. Made in the U.S.A.

15-9033 *Order #3162* $19.95

15-1228

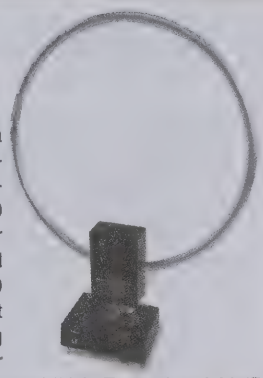


The **Philmore 15-1228** chimney antenna mount is made of strong 12 gauge galvanized steel and includes two 18 foot galvanized straps. For masts up to 1.25" (OD). With hardware. Made in U.S.A.

15-1228 *Order #6703* $36.95

AOR

LA400



The **AOR LA400** is a wide range receiving antenna covering 10 kHz to 500 MHz. There are four selectable band ranges from 150 kHz to 30 MHz that allow manual tuning (fixed operation for 10-149 kHz and 30-500 MHz). Exceptional 20dB gain is realized, thanks to a built-in low noise amplifier. This indoor antenna works effectively against local noise from electrical devices such as televisions, PCs, fluorescent lightening, dimmers, etc. This supplied loop element has a 1 foot diameter. Unlike previous amplified indoor loop antennas, the band switching and fine tuning controls are not tied to the loop element. With these controls now on the control box and by using the optional LA400-RCK (*#4695* $88.95) 32 foot extension cables it is possible to tune the antenna while the loop element is set up at the best location possible. Output is a BNC jack. A 3.3 foot BNC to BNC patch cable is provided. Operates from 12 VDC or via supplied AC wall adapter. List $575.00.

LA400 *Order #5051* **$519.95**

GRUNDIG

AN200

The **Grundig AN200** is a passive, fully adjustable indoor antenna for the AM broadcast band. This inductive coupling makes it easy to use with most portables that have an AM Ferrite bar antenna. Simply placing this antenna *near* the radio will improve reception! Just adjust the AN200 tuning knob for maximum gain. There is also an output jack for a *wired* connection to radios with AM antenna terminals. The supplied cable has a 3 conductor 3.5mm plug at one end and bare wires at the other end. [NOTE: This antenna does not pickup up shortwave frequencies].

AN200 *Order #0912* **$29.95**

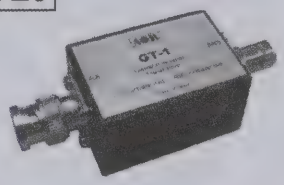
AOR

SA7000

The **AOR SA7000** super wide range receiving antenna covers from 30 kHz to 2 GHz. This 6 foot (1.82 m) passive antenna has two vertical elements with built-in duplexer. It includes 50 feet of RG-58 coax lead-in to a BNC plug. The SA7000 is a strong choice for the AOR AR5001D, AR8200 or AR8600. *Order #3755* **$289.95**

AOR

GT-1



The **AOR GT-1** may be connected between the receiver and the LA400 antenna. It will greatly reduce local noise by breaking the ground loop effect between antenna and the receiver, especially when the LA400-RCK separation cables are used. Please note that the supported frequency range for this device is 40 kHz to 30 MHz. The output to the receiver is BNC male. It may be directly connected to the receiver. The antenna input to the GT-1 is BNC female.

GT-1 *Order #4893* **$59.95**

TECSUN

AN200

The **Tecsun AN200** is a passive, fully adjustable indoor antenna for the AM broadcast band (520 to 1710 kHz. It is a tunable antenna that boosts your receiver's reception. In most cases it works best by simply being near your radio, but it does come with a wire that you can use to directly connect to your radio's external jack (if it has one). The ring is 9 inches in diameter. (Not for shortwave).

AN200 *Order #6238* **$24.95**

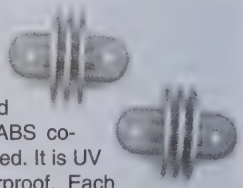
BUDWIG

DIPOLE INSULATOR

Constructing a dipole is easy with the **HQ-1** center insulator. Attach each "arm" of your dipole to this device and then screw your PL-259 into the center! You get easy assembly, the best connection, the strongest support and the most weatherproof fit.

Budwig HQ-1 *Order #1782* **$14.95**

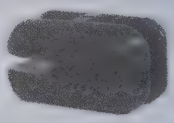
END INSULATOR



The **Budwig HQ-2** end insulator is made of ABS copolymer, 35% glass filled. It is UV resistant and weatherproof. Each HQ-2 is approximately 2 inches long. The distance from center hole to center hole is 1.25 inches. Sold in a package of two (2). ½ oz each.

Budwig HQ-2 *Order #3412* **$3.49**

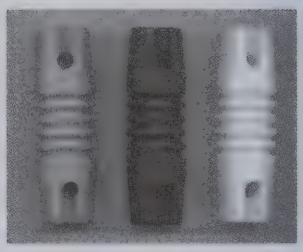
ECONOMY INSULATOR



This economy wire insulator is 1.8 inches long black and has a wire snap on one side. 0.65 oz.

C-150 *Order #4818* **$ .59**

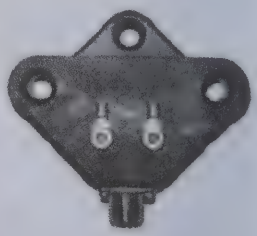
END INSULATOR



These popular "dog-bone" end-insulators are made of a strong plastic with high dielectric qualities, for excellent strength and excellent weatherability. 3 inches 1 oz. Sold separately in 3 colors.

JTGDOG Gray *Order #5268* **$ .79**
JTBDOG Black *Order #5267* **$ .79**
JTWDOG White *Order #5269* **$ .79**

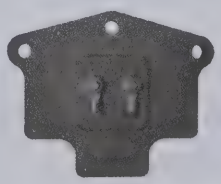
CENTER INSULATOR



Constructing a dipole is easy with these center insulators. Attach each "arm" of your dipole to this device and then screw your PL-259 into the center! Power rating is 2000 watts RMS. Now also compatible with ladder line. Sold separately in three colors.

JTCE1G2 Gray *Order #5527* **$14.95**
JTCE1W2 White *Order #5526* **$14.95**
JTCE1BK2 Black *Order #5524* **$14.95**

JTCE3G



LADDER LINE INSULATOR

Constructing a dipole with ladder line is easy with the Jetstream center insulator. Includes hardware (nuts, bolts, screws, ring terminals). Rated 2 kW.

JTCE3G Gray *Order #6861* **$12.95**
JTCE3B Black *Order #3106* **$12.95**

PC-SGM/MKT

The **ProComm PC-SGM/MKT** is an attractive black 26 inch through-the-glass mobile scanner antenna that looks like a cellular car antenna. It covers 30 to 1200 MHz (receive only) and comes with 15 foot of RG-58U coaxial cable that terminates to a male BNC plug.

PC-SGM/MKT *Order #0373* **$28.95**

SCAN4

The **SCAN4** is the answer for improved scanner performance in a vehicle, without the addition of an obtrusive vehicle antenna. The SCAN4 is easy to install and consists of 5 feet of RG174 coaxial cable to a 19 inch wire antenna element. The antenna element attaches to your window via two integrated suction cups. The coax terminates to a male BNC plug. For receive only.

SCAN4 *Order #1820* **$10.95**

SPECTRUMFORCE

SFA-201B
SFA-201S

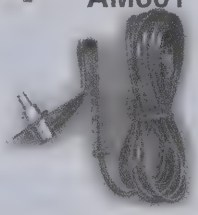
The **SpectrumForce SFA-201B** scanner antenna provides receive coverage from 25 to 1300 MHz. This diminutive antenna stands only 17 inches high, including the magnetic base. It comes with 12 feet of RG-174 coax cable that terminates to a male BNC plug.

The **SpectrumForce SFA-201S** is identical, but terminates to a male SMA plug,

SFA-201B BNC *Order #5896* **$19.95**
SFA-201S SMA *Order #3270* **$19.95**

OPEK

AM800
AM801



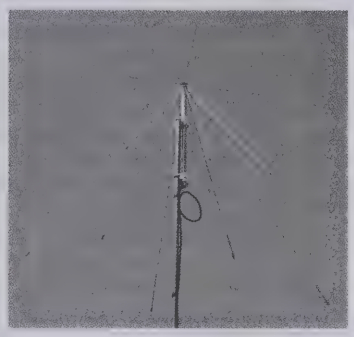
Use these **Opek** window antenna mounts to conveniently get your scanner's antenna outside of your vehicle for better gain! Both versions clamp on top of your auto window and feature an 8 foot RG174 coaxial cable to the appropriate SMA or BNC plug.

Opek AM800 SMA *Order #0204* **$13.95**
Opek AM801 BNC *Order #0270* **$12.95**

■ Lightning surge protectors are recommended for outdoor antennas. Please see page 39.

AOR

DA3200



The **AOR DA3200** is a 16 element, omnidirectional discone receiving antenna covering 25 to 3000 MHz. It includes 49 feet (15 m) of 5D-2V low-loss coaxial cable. There is an N male plug at the antenna end and now an N male plug at the radio end. This 45 inch antenna is great for scanners. With two U bolts. Mast shown is not supplied.

DA3200 *Order #5381* **$229.95**

MA500

The **AOR MA500** is a quality 29 inch (740 mm) magnet mount mobile antenna covering 25 to 1300 MHz. It includes a 13 foot (4 m) coax cable terminating in a BNC plug.

Order #2616 **$129.95**

DA6000

The **AOR DA6000** high performance, commercial grade UHF discone receive antenna covers 700 to 6000 MHz. It uses a low-loss N connector. Antenna gain is 2.5 dB (max.). Height is 9.2 inches. Radials are 4inches. 16 horizontal elements are 3.2 inches. Weight is 1.6 lbs. Impedance is 50 ohms. Very low loss coaxial cable (not supplied) must be used with this antenna. The DA6000 comes with a mounting mast, mast clamp and instructions. Will accept 1 to 2 inch mast.

DA6000 *Order #6590* **$489.95**

➤ Please also see the **AOR SA7000** on page 34

HUSTLER

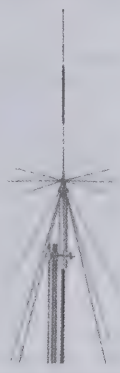
DCX

The **Hustler DCX** is a discone base antenna that provides good omnidirectional coverage from 40 to 999 MHz. This 55 inch antenna easily mounts to any mast (not supplied) with supplied hardware. Has SO239 to accept PL259.

Hustler DCX *Order #1205* **$32.95**

COMET

DS150S

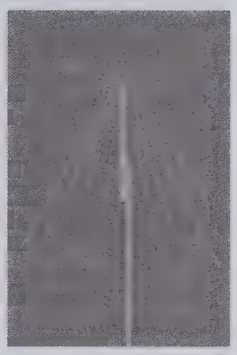


The **Comet DS150S** discone antenna receives solid from 25 to 1500 MHz and can be used for transmit on 50, 144, 430, 900 and 1200 MHz ham bands (under 100 watts). This stainless steel antenna is 4.6 feet high and attaches to any standard mast (not supplied) from 1.2-2.4 inches with the supplied U-bolt. Weight is 3.2 lbs. Terminates to an SO-239 and comes with a 65 foot RG-58A/U PL259 to PL259 coax cable.

Order #3587 **$94.95**

ICOM

AH8000



The **Icom AH8000** is a multi-purpose discone antenna that receives solid from 100 to 3300 MHz! It can also be used for transmit on 144, 430, 1200 and 2400 MHz ham bands (under 200W). This omnidirectional antenna is 3 feet high and attaches to any 1-2 inch standard mast with two supplied U-bolts (mast shown is not supplied). 2.1 lbs. Comes with a preassembled 49 foot cable with N connectors.

AH8000 *Order #1945* **$269.95**

This adapter converts the N male to a BNC male.
UG-349/AU *Order #4571* **$4.95**

This adapter converts the N male to a PL-259.
UG-83 *Order #1384* **$4.95**

CREATE

5130-2N

The **Create Log-Periodic 5130-2N** is a log periodic antenna for the range of 105-1300 MHz. It features 19 elements providing 10 to 12 dBi. It can be used for receive and transmit (to 500 watts). The boom length is 4 feet 6 inches and weighs only 6 lbs. It is wind rated to 90 m.p.h. It mounts on a 1.5 to 2 inch mast. Mast and lead-in cable are not provided. A low loss N connector is utilized.

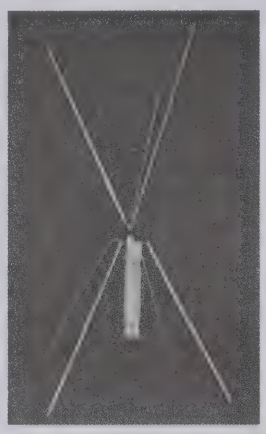
Create 5130-2N *Order #1825* **$339.95**

WEPA2

The **WEPA2** is an economical 4 section, hinged replacement BNC telescopic antenna for most scanners radios. Extends to 20 inches and collapse to 6.75 inches.

Order #6423 **$8.95**

MP antenna SUPER M CLASSIC



The **MP Antenna Super M Classic Base** was designed for both amateur and scanner applications. It seamlessly receives 25 MHz to 1.3 GHz. Multi-Polarized technology with MP Antenna design and production standards make the Super M Classic™ a superior VHF-UHF receive antenna. This antenna also provides impressive transceive performance in the 2 meter, 220 and 440 MHz ham bands (up to 200 watts). Experience clearer, more consistent communications with this American made, quality antenna. This antenna terminates to a low-loss female N jack.

08ANT0863 *Order #0307* **$114.95**

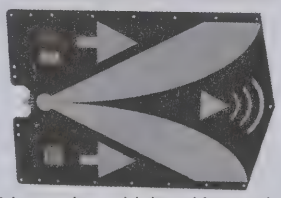
See more **MP Antenna** antennas on page 85.

COMET BNC-W100RX

The **Comet BNC-W100RX** scanner receive antenna covers 70 to 900 MHz. The telescoping base is marked with a chart. You can extend one to eight elements to optimize reception in a given band. It features a double fold-over hinge for convenience. The telescopic whip antenna is 40 inches extended, but collapses down to 8 inches. It terminates to a male BNC plug.

BNC-W100RX *Order #5458* **$29.95**

RFspace TSA600



RFspace TSA-600 is an ultra-wideband log periodic PCB antenna covering 600 - 6000 MHz. SMA.

TSA-600 *Order #6691* **$68.95**

COMPACtenna 2M/220/440

The **COMPACtenna 2M/220/440** was designed primarily as a compact transceive antenna for 144-148, 219-225 and 420-450 MHz (p. 85) but also works well as an inconspicuous scanner antenna. The 7.5 inch rugged antenna provides high performance as a result of its unique electric/magnetic field diversity design. The patented design uses the latest science to provide revolutionary performance in *Non-Line-Of-Sight* obstructed environments such as behind buildings, in garages, and in valleys. Nom. gain +3 dBi. NMO base.

2M/220/440 *Order #0842* **$99.95**

COMET HT-55

The **Comet HT-55** is a small flexible antenna with wideband receive coverage from 118-160, 250-290, 360-390, 420-470 and 820-960 MHz. It can also can be used for transmit up to 5 watts in these commercial bands: 153 to 157 MHz and 460 to 470 MHz. This black 8.75 inch antenna terminates to a 50 ohm SMA jack.

HT-55 *Order #5440* **$29.95**

ProComm Inc. SP-800

The **ProComm SP-800** ***Spider*** is a base scanner antenna capable of working with most any VHF/UHF scanner receiver. It covers 30-1200 MHz (receive only). Two adjustable mounting bands are supplied to fasten the base to a mast or vertical railing. The antenna terminates to a standard SO-239 jack. It is ready to accept a PL-259 plug (not supplied). Made in U.S.A.

SP-800 *Order #5531* **$39.95**

SP-800 *with* 75 feet of coaxial cable PL259 to BNC.

SP-800/75BN *Order #4098* **$59.95**

REMTRONIX REM-800B REM-800S

The **Remtronix REM-800B** (shown) is a very compact flexible antenna providing extremely good VHF-UHF reception especially in the range of 700 to 960 MHz. It has +6dB minimum gain over a standard antenna. This 7 inch antenna terminates to a male BNC.

REM-800B *Order #6119* **$21.95**

The **Remtronix REM-800S** (not shown) is the same, but terminates to a male SMA. These very high quality antennas are made in Japan.

REM-800S *Order #6198* **$21.95**

DIAMOND ANTENNA D-3000N

The **Diamond D-3000N** discone antenna receives solid from 25 to 3000 MHz and can be used for transmit on 50, 144, 430, 900 and 1200 MHz ham bands (under 100 watts on 144 up, and 20 watts on 6 m.). This omnidirectional, stainless steel antenna is 67 inches high and attaches to any standard mast (0.98-2.05 inches) with two supplied U-bolts. The mast is not supplied. The D-3000N terminates in a female N jack. Coax cable is not included.

D-3000N *Order #5470* **$134.95**

DIAMOND ANTENNA D220R

The **Diamond D220R** mini discone antenna receives solid from 100 to 1600 MHz! It can also be used for transmit on 144, 430, 904, 1200 MHz (under 50 watts). This stainless steel antenna is 27.6 inches high (with a 8.5 inch maximum diameter). The mount is *not* supplied. Weight is 0.8 lbs. The D220R terminates to a 50 ohm male UHF [PL259] type connector. This will fit directly into a PO type mount (not supplied), thus making it appropriate for some mobile applications.

Order #6725 **$103.95**

DIAMOND ANTENNA D-130J/NJ

The **D-130J** super discone antenna is an ultra-wideband omnidirectional antenna that offers solid coverage from 25 to 1300 MHz. This lightweight antenna (2.2 lbs) is made of precision tooled stainless steel. It has an SO-239 jack to accept a PL-259. Cable and mast not supplied.

D-130J *Order #2405* **$94.95**

The **D-130NJ** is the same but with an N jack.

D-130NJ *Order #5156* **$95.95**

DIAMOND ANTENNA RHF40 SRHF40

The **Diamond RHF40** is a strange HT antenna for 2 meters and 440 MHz. The top 13 inches of the antenna is completely flexible ... just like a pipe cleaner. It can be twisted into almost any shape. The total length of the antenna is 16 inches. The RHF40 is also a capable wideband receive antenna for 120/150/300/450/800/900 MHz. BNC base.

List $27.95 *Order #0795* **$24.95**

The **SRHF40** is the same but with an SMA plug.

List $26.95 *Order #4730* **$23.95**

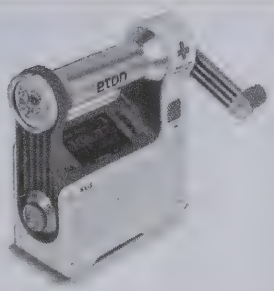
DIAMOND ANTENNA RH77CA SRH77CA

The **Diamond RH77CA** is a popular 2M/440 transceive HT antenna. It is also immensely popular with scanner users because it can additionally receive well on: 120, 150, 300, 450, 800 and 900 MHz. This thin, flexible, black antenna is 15 inches and terminates to a 50 ohm BNC. *Order #2368* **$21.95**

The **Diamond SRH77CA** is similar, but terminates to an SMA. *Order #0491* **$23.95**

eton EMPOWERED BY NATURE

AXIS



The **Eton Axis** is your one piece emergency solution. This self-powered safety hub gives you AM, FM and NOAA weather, an LED light source and USB cell phone charger. It receives all 7 NOAA weather channels plus Alert. It even has a built-in clock function with alarm. There is a white LED light source *plus* a red LED flashing beacon. This device can be powered via the aluminum crank hand turbine into the supplied internal NiMH battery, or via three AAA cells (not supplied) or external AC adapter (not supplied). There are gasketed jacks for earphones and for auxiliary input. 6.375 x 6.625 x 2.125 inches 1.6 lbs.

AXIS *Order #2372* **$59.98**

eton EMPOWERED BY NATURE

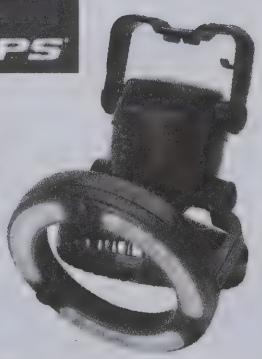
ROVER

The **Eton Rover** is a simple, compact and portable information center and light source in any emergency or outing. It features an AM and FM radio plus it receives the NOAA weather stations. Three bright white LEDs lead your way. This self-powered device features a sturdy aluminum crank to recharge the internal lithium-ion battery. This device also has a direct USB power transfer port (USB cable included). It has an earphone jack. 6.25 x 2.75 x 2.25 inches 12.6 ounces.

ROVER *Order #5643* **$29.98**

CYCLOPS

FANLED

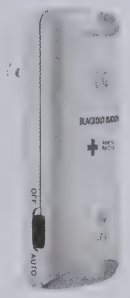


The **Cyclops FANLED** is a true multi-mission device. It provides a variable speed fan *and* 18 LED light source. The fan and light can be used independently or together. It operates from 2 "D" cell batteries (not included). The efficient design provides up to 50 hours of low speed fan, 30 hours of high speed fan, 37 hours of illumination or 16 hours of combined fan/light. A great way to stay cool and "see the light" anywhere! In a tent, in an RV or at work. A great addition to your preparedness stash or to have the next time the power goes out. The handle/hook lets you hang it anywhere, and the light bar converts to a fan stand.

List $24.95 *Order #3340* **$12.98**

eton EMPOWERED BY NATURE

ARCBB

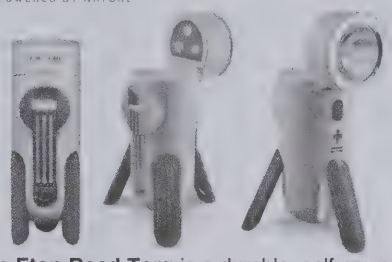


The **Eton ARCBB** *Blackout Buddy* is your standby sentinel in the event of a power outage. Leave it plugged in to serve as a nightlight until the power goes off and then it becomes a powerful 3 element LED flashlight. It features a flip-out AC plug making it great for travel too. Charging time is 3 hours, and flashlight time is 2 hours. 2 x 3.95 x 0.75 inches 2 oz.

ARCBB *Order #0347* **$13.98**

eton EMPOWERED BY NATURE

ROAD TORQ

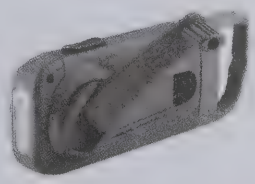


The **Eton Road Torq** is a durable, self-powered dynamo hand cranked emergency light with built-in Li-ion battery. It folds for convenient storage in your car and features 3 red LEDs and a bright 1W LED spotlight. Crank 2 minutes for 15 minutes of light. Also has 5V DC power input. With car cigar adapter. If you ever have to change a tire at night, you will be glad to have your Road Torq. Even the legs are reflective! 2.5 x 7.125 x 2.5 inches 14 oz.

Road Torq *Order #2683* **$14.98**

eton EMPOWERED BY NATURE

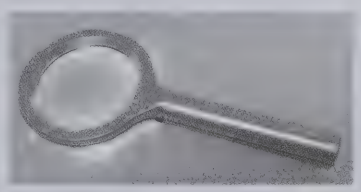
CLIPRAY



The **Eton Clipray** is a wind-up, self powered LED flashlight that also has a USB charging jack for cell phones. It features a hands-free carabiner clip. 6 x 2.25 x 1.25" Red.

Clipray *Order #0166* **$13.98**

MG8B-2

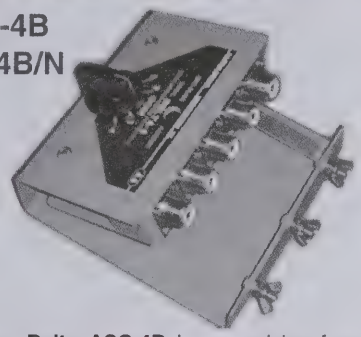


Well it seems like they are using smaller print these days. But we know that probably is not the case. Our eyes are just not as sharp anymore. This 3 inch, 3X handheld magnifier has 6 built-in white LEDs for illumination. It is handy for reading fine print, viewing surface mount components or detailed hobby work. Requires two AAs (not included).

MG8B-2 *Order #6575* **$7.95**

ALPHA DELTA

ASC-4B
ASC-4B/N



The **Alpha Delta ASC-4B** is a precision four position antenna switch employing the latest high-tech design. Cast aluminum constant impedance cavities maintain a constant 50 ohm impedance. These switches are rated at 2000 watts PEP. Silver-plated phosphor bronze micro strip construction ensures loss of less than 0.1 dB at 30 MHz with greater than 60 dB of isolation (0.5 dB loss and 50 dB isolation at 450 MHz). They can sit next to your equipment on a desk without having to be bolted down. The housing is at a 20 degree angle from horizontal to provide an effective viewing angle and minimize cables or hand pressure from moving the console. Your get three levels of surge protection! In the common position the radio is disconnected from all antennas and all antennas are connected to ground. A replaceable D-4 Arc-Plug cartridge will divert harmful surges to ground. The Delta switches reduce the hazard of lightning induced surges, but will not prevent fire or damage caused by a direct strike. Made in the U.S.A. The ASC-4B/N switch is the same except with 'N' jacks instead of SO-239s.

Alpha Delta ASC-4B Four Position Console
Order #1918 ..... **$149.95**

Alpha Delta ASC-4B/N Four Position Console
Order #1217 ..... **$159.95**

Alpha Delta D-4 Arc-Plug Replacement Pill
Order #0854 ..... **$8.95**

JETSTREAM

CO201

The **Jetstream CO201** economy two-position coax switch automatically grounds the unused terminal. Handles up to 1 KW. For 0-500 MHz. 50 ohm. SO-239.

CO201 *Order #6640* **$19.95**

Philmore **30-9730**

The **Philmore 30-9730** DPDT knife switch is a cheap and easy way to disconnect a wire receiving antenna from a radio. Black ABS plastic base. Current rating: 0.3 Amps 50 VAC or 0.5 Amps 6 VDC. The base is 2.4 x 1.7 inches.

30-9730 *Order #1432* **$3.95**

DAIWA

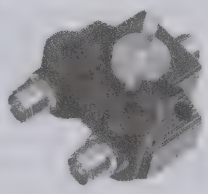
CS-201A CS-201GII

Daiwa switches utilize professionally engineered all metal cavity construction for maximum efficiency, high isolation and minimum resistance. Isolation is better than 50 dB at 300 MHz. Insertion loss <0.2 dB. The CS-201 is a two position switch that utilizes SO-239 connectors. Unused position is grounded. 0 - 600 MHz 2.5 KW PEP 50 ohm.

CS-201A *Order #1864* **$29.95**

As above but utilizes 'N' connectors 0-1300 MHz.
CS-201G II *Order #2224* **$44.95**

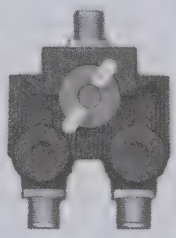
DIAMOND CX-210A



The **Diamond CX-210A** is a very high quality two-position switch (SO-239) for 0-1000 MHz. Insertion loss is <.05 dB at DC-500 MHz and <.1 dB 500-1000 MHz. Maximum power rating is 1500 watts. 50 ohm.

CX-210A *Order #1636* **$44.95**

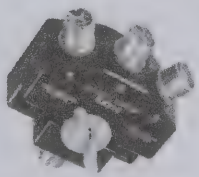
CX-210N



The "N" version of the CX-210 switch is rated to 3000 MHz with only <.1dB at 1000, .15dB at 2000 MHz.

CX-210N
Order #0605 **$76.95**

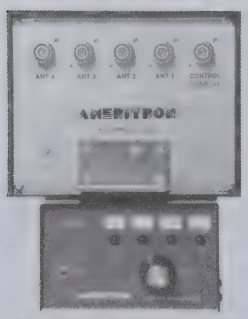
CX-310A



The **Diamond CX-310A** is a low loss, three position coaxial switch rated to 800 MHz. It can handle up to 1500 watts at HF frequencies. Insertion loss 0-500 MHz is 0.10 dB and at 500-1000 MHz it is 0.15 dB. SO-239 jacks for input and output.

CX-310A *Order #2249* **$84.95**

AMERITRON RCS4/8/10



Universal carries all three Ameritron remote coax antenna switches. The **RCS4** [shown] **RCS8** and **RCS10** switch 4, 5 and 8 antennas respectively. Some require a control cable (not supplied). Visit our website for details and pricing.

ALPHA DELTA

DELTA SWITCHES

Alpha Delta employs cast aluminum cavities to permit the switching of two or four antennas while maintaining a constant 50 ohm impedance. Silver-plated phosphor bronze micro strip construction ensures loss of less than 0.1 dB at 30 MHz with >60 dB of isolation (0.5 dB loss and 50 dB isolation at 450 MHz). The Delta switches are rated at 1500 watts and offer three levels of surge protection. In the *common* position the common input line is disconnected from all antennas and all antennas are connected to ground. These switches feature a built-in surge protector. A replaceable D-4 Arc-Plug cartridge will divert harmful surges to ground. (Note: The Delta switches reduce the hazard of lightning induced surges, but will not prevent fire or damage caused by a direct strike). The Delta 2B and Delta 4B switches feature SO-239 fittings (for PL-259s).
The **Delta-2BN** and **Delta-4BN** switches are the same except with 'N' jacks instead of SO-239s.

Alpha Delta Delta-2B Two Position Switch
Order #4787 ..... **$69.95**

Alpha Delta Delta-2BN Two Position Switch
Order #4788 ..... **$84.95**

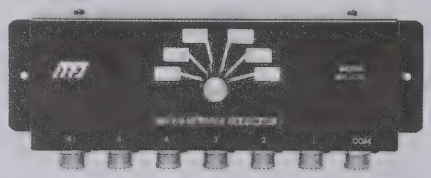
Alpha Delta Delta-4B Four Position Switch
Order #4789 ..... **$99.95**

Alpha Delta Delta-4BN Four Position Switch
Order #4790 ..... **$109.95**

Alpha Delta D-4 Arc-Plug Replacement Pill
Order #0854 ..... **$8.95**

MFJ

MFJ-1701 MFJ-1706



The **MFJ-1701** allows you to switch between six antennas and can be used for 52 to 75 ohm systems. It uses seven SO-239 connectors. All unused terminals are automatically grounded for static-lightning protection. With mounting holes. Can be used for transmitting up to 2000 watts SSB or 1000 watts CW. Black aluminum. 10 x 3 x 1.5".

MFJ-1701 *Order #1083* **$69.95**

The **MFJ-1706** 6 pos. balanced antenna switch features 5-way binding posts instead of SO-239s.

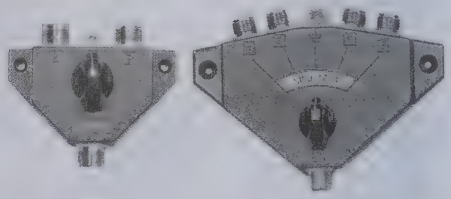
MFJ-1706 *Order #2268* **$99.95**

MFJ-1700C

If you have multiple antennas *and* multiple radios, the **MFJ-1700C** is just for you! It can handle up to six radios and six antennas. With mounting holes for desk or wall. May be used for transmitting up to 2000 watts single sideband or 1000 watts CW at 50 to 75 ohms. SO-239 jacks. Built-in surge protection. Requires PL-259 to PL-259 coaxial jumper. Black 4.5 x 7 x 3 inches.

MFJ-1700C *Order #0212* **$99.95**

MFJ-1702C MFJ-1704



The **MFJ-1702C** two-position coax switch has a center ground position and the unused terminal is automatically grounded for static and RF protection. Handles up to 2.5 KW PEP 1 KW CW. 0-500 MHz. Now includes surge protection. 50 ohm. SO-239. Blue-green color.

MFJ-1702C *Order #2811* **$36.95**

As above but with "N" connectors (no surge prot.)
MFJ-1702CN *Order #1192* **$41.95**

The **MFJ-1704** switch selects up to four antennas or center ground position. It also features static surge suppression with a replaceable arrestor. It handles up to 2.5 KW PEP 1 KW CW. 0-500 MHz. Isolation is rated from >60 dB at 30 MHz to >50 dB at 500 MHz. 50 ohm. SO-239. Blue color.

MFJ-1704 *Order #0362* **$84.95**

As above, but with "N" type connectors.
MFJ-1704N *Order #2494* **$89.95**

MFJ-1703

The **MFJ-1703** lets you safely switch between two antennas and two transceivers. It keeps your transceiver always connected to one of two antennas! Connect two rigs and two antennas and switch between different combinations of the two. For 1.8-30 MHz 300 Watts PEP SSB (150 Watts CW). All metal cabinet with mounting tabs. Switches 50-75 Ohm unbalanced lines. SO-239 connectors.

MFJ-1703 *Order #3818* **$29.95**

▶ Since no single antenna works best on all frequencies, many listeners use more than one antenna. The antenna switch is a critical component of the listening system since it is switching very small current. A poorly designed or poorly constructed switch can introduce enough resistance to substantially attenuate the signal coming in from your antenna. Do not jeopardize your entire listening system with a poor antenna switch.

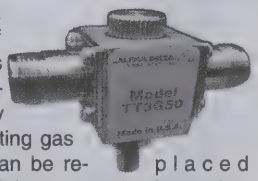
ALPHA DELTA LT

Today's radios utilize solid-state components and have very sensitive front ends. The Transi-Trap LT utilizes a hermetically sealed gas filled cylinder which has very reliable, predictable and fast switching characteristics (less than 100 nanoseconds!). It directs the discharged current to an isolated ground terminal (not the coaxial ground) and has a replaceable plug. The LT is for receive and transmit up to 200 watts under 30 MHz. The LT and other protectors must be connected to a proper earth ground.

Transitrap LT *Order #1502* **$29.95**

Replacement cartridge for the LT.
Pill for LT *Order #1503* **$17.95**

ATT3G50



The **Alpha Delta ATT3G50** series of coax surge protectors offer wideband capability with extremely low loss. The fast acting gas tube ATT arc plug can be replaced without tools. All models are completely weather proofed by the use of O-ring seals and all hardware is stainless steel. Made in America.

The **ATT3G50** "N" version (shown) can be used from DC to 3 GHz with typical loss of only 0.1 dB @ 1 GHz and 0.2 dB at 2 GHz. For receive or for transmit (up to 200 watts).
ATT3G50 (N) *Order #4003* **$59.95**

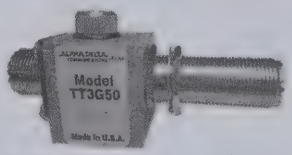
The **ATT3G50U** version features UHF female jacks (SO-239) and can be used for receive or transmit (up to 200 watts) from 0 to 500 MHz.
ATT3G50U *Order #4004* **$49.95**

The **ATT3G50UHP** is a high power transmit version of the ATT3G50U and can handle up to 2 kW.
ATT3G50UHP *Order #4005* **$49.95**

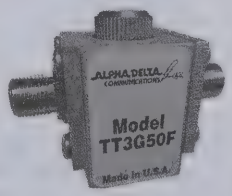
The **ATT3G50HP** is a high power transmit version of the ATT3G50 (N) and can handle up to 2 kW.
ATT3G50HP *Order #4008* **$60.95**

Replacement cartridge for ATT3G50 & U.
3G50 *Order #4006* **$9.95**

Replacement cartridge for ATT3G50HP & UHP.
3G50HP *Order #4009* **$10.95**

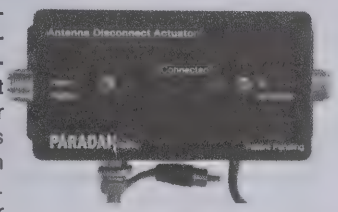


The **ATT3G50-UBXL** is for bulkheads up to 1.5", 0-500 MHz up to 200 watts.
ATT3G50UBXL *Order #2794* **$60.95**



The **ATT3G50F** covers DC to 3 GHz up to 200 watts. It has female "F" connectors for input and output. A great choice for quality protection of FM, TV and scanner antennas.
ATT3G50F *Order #1805* **$60.95**

PARADAN radio ANT DISCON

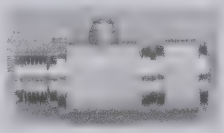


The **Paradan Antenna Disconnect** actuator protects your radio in two ways. When your radio is *on*, it prevents static-discharge, surges and lightning-strike effects via a gas discharge tube on the coax line input. When it senses your radio is turned *off* the antenna's signal and ground wires are shorted together and grounded plus *both* the coax center and coax ground are disconnected from the radio. When the radio is powered *on*, the actuator reconnects the antenna for normal operation. A great *insurance policy* for your radio. The required 12 Volt power for the actuator comes from the transceiver's auxiliary power socket (or your 12VDC power supply). If you do not have an aux power jack, *and* always leave your power supply on, there is an optional *ON Detector* that connects in series with your radio's power line. See website for info. Made in U.S.A.
ANT DISCON *Order #4738* **$94.95**

DEO RG2000U

Sensitive receiver "front-ends" can also be damaged by nearby high power radio signals (RF). The ham across the street running 2000 watts into a beam antenna can generate enough RF in your antenna system to damage or desensitize your receiver. Other potential RF sources are high powered CB operators, commercial radio and TV broadcasters and public service broadcasters. Hams who have separate receivers are also very susceptible to this problem. The **DEO RG2000U** is a diode-activated device that will switch your antenna automatically to ground in the presence of a high-power RF field with low insertion loss. *Not* for use with transceivers or transmitters! Uses standard SO-239s. Made in U.S.A.
DEO RG 2000U *Order #1305* **$29.98**

OPEK AT7516

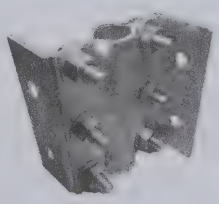


The **Opek AT7516** *air gap* surge arrestor is not the *state-of-the-art* in radio protection and are not the best for today's solid-state rigs. However, if you are on a budget, this device is a whole lot better than nothing! For receive and transmit up to 1000W to 500 MHz. -0.5 dB insertion loss.
A7516 *Order #4618* **$3.95**

Lands Precision LSP-UF-BUM-2G

The **Lands Precision LSP-UFBUM-2G** coaxial lightning surge protector diverts harmful surges to ground. Female UHF (SO-239) to male UHF (PL-259). With replaceable pill. For use 0 to 2 GHz. Conservatively rated at 200 watts. Even includes a washer and bolt to facilitate bulkhead mounting. A ground wire spade lug is supplied.
LSP-UFBUM-2G *Order #6499* **$19.95**

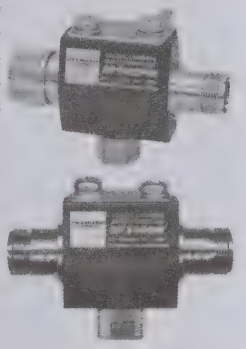
UCGC



The **Alpha Delta UCGC** is a special copper grounding clamp. It allows for the direct attachment of ATT/TT3G50 series surge protectors to your 5/8" ground rod.
UCGC *Order #5808* **$49.95**

The new **Alpha Delta GBWM** ground bus holds up to four ATT type surge protectors.
GBWM *Order #6170* **$69.95**

DIAMOND SP1000 SP3000



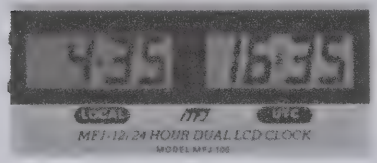
The **Diamond SP** surge protectors offer wideband capability with extremely low loss and impulse wave discharge capacity of 6000 Amps. Insulating resistance DC 100 V is over 10,000M ohms. The **Diamond SP1000** series is a favorite for HF through 2 meters. The SP1000PW (shown top) is waterproof. The **Diamond SP3000W** (shown lower) is capable for up to UHF and above and is waterproof. Select the version of this device depending on connector types, frequency and power capacity. For transceive *or* receive-only use.

Order	Model	MHz	Watts	I/O	Price
#2313	**SP1000**	0-1000	400	SO239-SO239	**$26.95**
#6169	**SP1000PW**	0-1000	400	SO239-PL259	**33.95**
#5346	**SP3000W**	0-3000	200	N Fem-Fem	**39.95**
#2357	**SP3000P**	0-3000	200	N Fem-Male	**40.95**

MFJ-1164B

The **MFJ-1164B** reduces AC power line RFI, noise, transients, surges generated by computers, motors, RF transmitters, static/lightning by 30 dB and up to 60-80 dB with good earth ground. It provides inductive isolation, capacitive decoupling, RFI rejection, over-voltage protection. MFJ-1164B has four 3-wire, 15 Amp, 120 VAC outlets that are spaced for large adapters. 25 Amps/3000 Watts max. Aluminum case 12 x 3½ x 2 inches.
MFJ-1164B *Order #4743* **$74.95**

MFJ-107B
MFJ-108B



The **MFJ-107B** LCD clock features bold 5/8" inch numerals that display hour and minutes. 2 x 1 x 2 inches. The MFJ-108B features a *dual* display for both 24 hour UTC and 12 hour local time. 4 x 1 x 2 inches. Battery included with both models.

MFJ-107B	*Order #0895*	**$12.95**
MFJ-108B	*Order #0990*	**$21.95**

MFJ-112B

The **MFJ-112B** DXer's 12/24 hour world map-clock not only shows you the time throughout the world, but it also indicates day-of-week, month, date and year. Push buttons let you move the display to any time zone on the world map. There is even a language display option for the day-of-the-week indication. It may be set for English, French, Spanish, German or Italian. Gray plastic case. With 24 hour alarm. This clock has a cool blue backlight feature for night viewing. It stays on for four seconds. 4.5 x 3.375 x 2.25 inches. Requires two AAA cells (not included).

MFJ-112B	*Order #1921*	**$26.95**

MFJ-123B

The **MFJ-123B** solar powered *Eternity Atomic Clock* never needs batteries and you never need to set time! Ordinary room light powers the clock and replenishes the built-in rechargeable battery to run the clock in-the-dark. The whopping LCD display is 3.5 inches tall and 6.25 inches wide. Choose 24 or 12 hour time format. Has a huge running seconds display. The digital calendar mode gives you the day of the week, month, date, and year. Hang it on your wall or set it on your desk and forget it. 9 x 6.25 inches. Super attractive metallic silver fits in any decor.

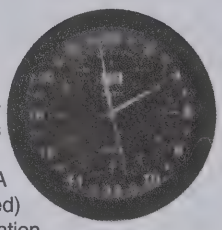
MFJ-123B	*Order #4970*	**$45.95**

KENKO®

The Kenko clocks have a large digital display that shows time (12/24) and indoor temperature (C/F). The backlight stays on for 6 seconds. The clock can announce the time and temperature! Requires AA batteries (not included). 5 x 3 x 1.5".

TC GREEN	*Order #6275*	**$16.98**
TC RED	*Order #6276*	**$16.98**

MFJ-105D



The ten inch **MFJ-105D** 24 hour wall clock provides excellent visibility, even from across the room. A single AA cell (not included) provides one year of operation.

MFJ-105D	*Order #5739*	**$24.95**

MFJ-113

The **MFJ-113** economy LED clock-alarm has a four digit 1.8" red LED display that can be set for 12 or 24 hour format. Also has a 9 minute snooze function. A 9 volt battery (not included) provides backup. 110 VAC 60 Hz. Black 9 x 3.8 x 2.5".

MFJ-113	*Order #4262*	**$19.95**

MFJ-122RC

The **MFJ-122RC** atomic clock features: 24/12 switchable format, seconds display, date/day, snooze/timer, cool blue backlight and selectable DST. It is white with a snooze/light bar switch at the top. Like all the atomic clocks we offer, it is designed for use only in the U.S.A., as these devices stay accurate by automatically synchronizing with the WWVB 60 kHz time station in Boulder, Colorado. It also displays indoor temperature (32 to 122°F). 3.5 x 4 x 1.6 inches. Requires two AAA cells (not included).

MFJ-122RC	*Order #6319*	**$12.95**

MFJ-117

The huge **MFJ-117** LED clock is over 11 inches wide. The 2.5 inch LED display can be set for 12 or 24 hour format and comes with an AC adapter. Can be set on a desk or hung. A 9 volt battery (not supplied) provides backup power.

MFJ-117	*Order #4267*	**$37.95**

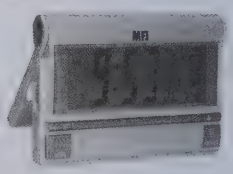
- In order to avoid the confusion of many time zones, hams, military, marine and international broadcasters always refer to time at the zero meridian which runs through Greenwich, England. This time zone is five hours ahead of Eastern Standard Time (4 hours ahead of Eastern Daylight Time). This 24 hour format may also be called Coordinated Universal Time (UTC) or GMT. For example 4:00 PM EST = 21:00 or 4:00 P.M. EDT = 20:00 UTC.
- Shortwave listeners can hear ultra accurate time signals by tuning station WWV in Boulder, Colorado at 2500, 5000, 10000, 15000 or 20000 kHz. Canadian listeners should try for CHU Ottawa on 3330, 7850 or 14670 kHz.

MFJ-121B

The **MFJ-121B** atomic clock lets you simultaneously read UTC *and* local time. Huge 2 inch tall by 1½ wide LCD numerals with seconds display. Set either for 12 or 24 hour format. Automatic backlight operates daily at your preset time for 8 hours. Requires two AAA's (not supplied). Has D.S.T. disable.

MFJ-121B	*Order #4969*	**$74.95**

MFJ-133RC



The **MFJ-133RC** backlit LCD clock can display two time zones in 24 or 12 hour format. The main display can be set for any USA time zone. The second display can be set for any time zone including UTC. Atomic - WWVB for absolute accuracy! Huge 1 1/8 inch high-contrast LCD numerals with alarm and snooze function. Only 4 x 3 x ¾ inches. Requires two AAA cells (not included).

MFJ-133RC	*Order #0237*	**$32.95**

MFJ-136RC

The **MFJ-136RC** is a solar-powered, 12/24 hour desktop clock that never needs batteries! It features a large LCD display (1 5/8" x 2 ¼") and gives precision radio-controlled time synchronized from WWVB plus shows the date. It supports all U.S. time zones (not UTC). Press the snooze button to backlight the LCD (for 4 seconds). It also features an alarm with 5 minute snooze function. With auto D.S.T. 3 x 4.5 x 1.5 inches. List $29.95.

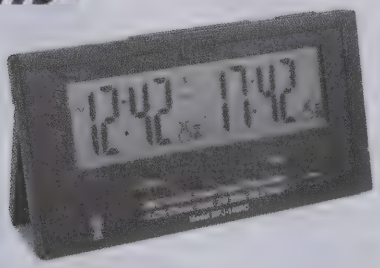
MFJ-136RC	*Order #4972*	**$18.98**

MFJ-139RC

The **MFJ-139RC** 12/24 hour clock boasts giant 4 inch digits. It has 8 time zones including Hawaii and Puerto Rico plus it supports GMT (UTC)! Daylight savings time can be turned on or off. It is solar powered so you never need batteries. Besides time, it also displays the month, date and day of the week. Plus it has an indoor thermometer and hygrometer. Can be placed on a desk or hung on the wall. 15.75 x 10.75 x 0.75". List $99.95.

MFJ-139RC *Order #6076* **$89.95**

MFJ-148RC



The huge **MFJ-148RC** dual time zone clock is optimized for amateur radio operation. It displays *both* local and UTC time in 12 or 24 hour format. It is radio controlled from WWVB in Boulder for absolute accuracy. The two LCD clocks have independent controls and are LED back lit on demand. Built-in 10 minute station ID timer with LED and buzzer alerts. With flip-stand or can be wall mounted. Requires two AA batteries (not included). 6.5 x 3.5 x 0.75 inches. List $59.95.

MFJ-148RC *Order #6118* **$55.95**

TENBA CASE

This padded canvas carrying case is 12 x 8 x 4" has carry strap and zippered side pocket.

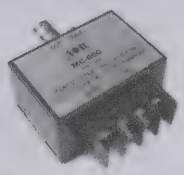
#0395 **$27.98**

ANNIVERSARY MUG

This striking midnight blue mug features the Universal Radio logo and *70th Anniversary* notation in metallic gold paint. Holds 11 ounces.

Mug 70th *Order #5853* **$8.98**

AOR MC-600



Many classic receivers from the Golden Age such as Hallicrafters, Hammarlund, National and Eddystone do not feature a 50 ohm coax input jack. The **AOR MC-600** allows an efficient connection of your coax fed antenna to these receivers. This impedance matching transformer is designed to work from 10 kHz to 30 MHz with less than 3 dB insertion loss. Input is 50 ohm BNC female. Output is 600 ohm balanced terminals. A short twin-lead jumper cable is supplied.

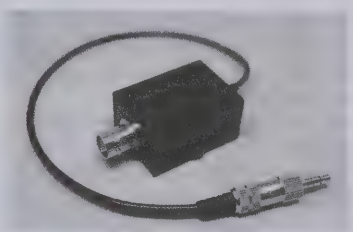
MC-600 *Order #3335* **$88.95**

GO BAGS

These insulated bags are great for creating an *Emergency Go Bag* for your radio. They are the perfect size for scanners and small shortwave portables. There is plenty of room for your radio, batteries, accessories, *World Radio TV Handbook* and more. The top is zippered and it has a carry strap plus an open pocket on the front panel. 8 x 6 x 5 inches.

Icom Logo - Blue	*Order #5832*	**$9.95**
Kenwood Logo - Green	*Order #5662*	**$9.95**
Yaesu Logo - Orange	*Order #5883*	**$7.95**
Universal Logo - Blue	*Order #5733*	**$7.95**

ApexRadio 35BNC-2



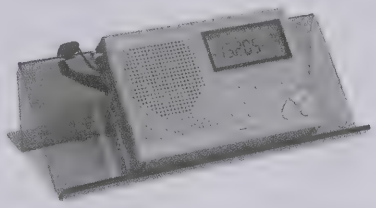
The **Apex Radio 35BNC-2** is a 11.5 inch (30 cm) adapter cable that provides a simple connection for your BNC coaxial antenna cable to the 3.5mm external antenna jack of your portable radio. Some radios like the Sony ICF-SW7600GR, output DC voltage to the external antenna jack (to operate Sony active antennas). The 35BNC-2 features a capacitor to isolate this voltage. The aluminum case is 40 x 30 x 20 mm and does not require an Earth ground. The 35BNC-2 also has an ESD (Electro-Static Discharge) circuit to suppress surges in the antenna line. However, it is always advisable to disconnect your antenna if a lightning storm is expected.

35BNC-2 *Order #5530* **$59.95**

RADIO STANDS

These handy clear plastic stand supports your portable shortwave at the optimum viewing angle. (The radios shown are not included). Size: 6.75 x 4.5 x 4.75 inches (5.2 inches on the slant).

CLEAR MED *Order #0022* **$8.95**



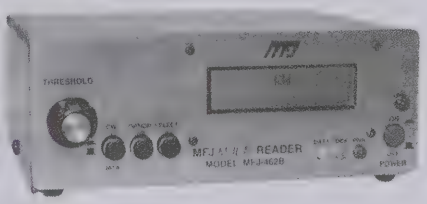
Translucent blue mini-stand for small portable radios (KA11/105, SWP). 7" wide, 3" on the slant.

BLUE MINI *Order #4270* **$6.98**

This clear radio stand holds the E1 and other larger portable radios at an optimum viewing and operating angle. It is 12 inches wide.

CLEAR LRG *Order #3873* **$18.95**

MFJ-462B

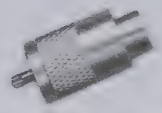


The **MFJ-462B** ***MultiReader™*** is a stand-alone multimode reader that is driven by audio from your shortwave receiver or transceiver. It can decode and display Morse code, Baudot RTTY (45, 50, 57, 75 and 100 baud), ASCII (110 baud) and AMTOR FEC. The text messages will scroll across the LCD display. No computer is needed. RTTY shifts include 170, 425 and 850 Hz. This device has an 8000 character volatile RAM buffer. The rear panel has input for a 12 VDC power supply (MFJ-1312D) and an Epson compatible parallel printer port (neither included). There is a key input jack if you wish to add a straight key (not supplied) and practice sending code to the reader.

MFJ-462B *Order #5513* **$189.95**

RF CONNECTORS

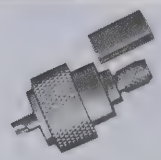
PL-259
Silver plated, silver plated tip and teflon.
Order #2111...$**2.19**



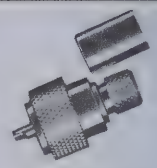
PL-259 SGT
Silver plated, gold plated tip and teflon.
Order #2973...$**2.79**

UG-175
PL-259/N reducer for RG58. Silver plate.
Order #2117...$**0.69**

UG-176
PL-259/N reducer for RG59/8X. Silver plate.
Order #2115...$**0.69**



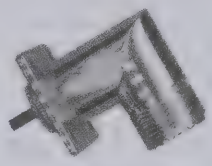
PL LMR240
PL-259 crimp RG8X/ LMR240. Silver plate.
Order #6491...$**1.89**



PL LMR400
PL-259 crimp RG8/ LMR400. Silver plate.
Order #6492...$**1.99**

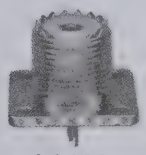
N
N male 2-part. Silver plate, gold tip, teflon accepts UG-175/176.
Order #1273...$**4.95**

N CHASSIS
N female chassis connector (4 hole).
Order #3379...$**4.95**



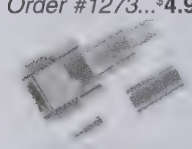
RAC
SO-239 right angle chassis (4 hole).
Order #5048...$**3.99**

SO239 SNGL
SO-239 chassis connector (1 hole).
Order #1903...$**2.09**

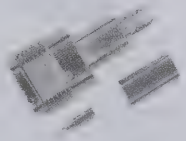


SO239
SO-239 chassis connector (4 hole).
Order #1426...$**1.99**

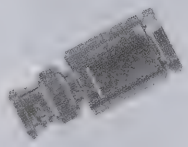
SMA CHASS
SMA chassis connector (2 hole).
Order #5027...$**2.59**



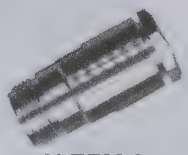
UHF IL 8X
Crimp inline SO-239 for RG-8X.
Order #5102...$**2.19**



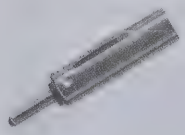
UHF IL 58U
Crimp inline SO-239 for RG-58U.
Order #5101...$**2.29**



BNC MALE 8
Male BNC for RG-8/ 213, 3 part solder.
Order #4702...$**2.99**



N FEM 8
N inline female for RG8U/213, 9913.
Order #1852...$**4.95**



MOTO PLUG
Motorola type antenna plug.
Order #0305...$**0.79**

BNC FEM CH
BNC chassis connector (4 hole).
Order #2812...$**3.29**

DIN PLUGS & INLINE JACKS

Order#	Model	DIN Description	Price
#2697	DIN 2PIN	2 Pin plug	$1.59
#0566	DIN 3PIN	3 Pin plug	2.59
#2361	INL DIN3J	3 Pin inline jack	2.79
#4078	DIN 4PIN	4 Pin plug	2.99
#1828	DIN 5PIN	5 Pin plug 180°	2.99
#2266	INL DIN5J	5 Pin inline jack180°	2.89
#2701	DIN 6PIN	6 Pin plug	2.99
#2870	INL DIN6J	6 Pin inline jack	2.29
#2851	DIN 7PIN	7 Pin plug	Disc.
#2828	INL DIN7J	7 Pin inline jack	1.98
#1395	DIN 8PIN	8 Pin plug 270°	3.29
#2331	INL DIN8J	8 Pin inline jack 270°	3.89
#2089	DIN 8KEN	8 Pin plug 262°	5.99
#0954	DIN 13KEN	13 Pin plug	4.99
#3046	MIN DIN4P	4 Pin Mini plug	1.89
#6373	MIN DIN5P	5 Pin Mini plug	.98
#3305	MIN DIN6P	6 Pin Mini plug	1.99
#3573	MIN DIN6F	6 Pin Mini chassis jack	1.69
#0161	MIN DIN8P	8 Pin Mini plug	2.19
#3345	MIN DIN8F	8 Pin Mini chassis jack	1.89

Item *#1395* is shown above.

DC POWER PLUGS

Common DC power plugs as used by Kenwood, Icom and Yaesu. KW2000A (left) is for older rigs.

KW2000A 6 cond. *Order #5368* $**1.59**
ARCPWR4 4 cond. *Order #0258* $**7.95**

MIC PLUGS & JACKS

Order#	Model	Description	Price
#1874	MIC 2 PIN	2 Pin plug	$3.99
#2793	2PIN MICJ	2 Pin chassis jack	2.99
#1892	MIC 3 PIN	3 Pin plug	3.69
#1155	3PIN MICJ	3 Pin chassis jack	2.89
#2400	MIC 4 PIN	4 Pin plug	2.99
#2398	4PIN MICJ	4 Pin chassis jack	2.89
#5082	INLINE 4P	4 Pin inline jack	7.99
#2401	MIC 5 PIN	5 Pin plug	2.99
#2977	5PIN MICJ	5 Pin chassis jack	3.39
#4344	INLINE 5P	5 Pin inline jack	5.98
#1919	MIC 6 PIN	6 Pin plug	3.79
#1834	6PIN MICJ	6 Pin chassis jack	3.99
#2112	MIC 8 PIN	8 Pin plug	3.99
#2399	8PIN MICJ	8 Pin chassis jack	4.19
#0526	INLINE 8P	8 Pin inline jack	7.99

DC PLUGS

Item *#4354* shown

Order#	Model	In/Out Diameter/Length	Price
#0910	204	1.3/3.5mm 1 inch	$0.99
#0821	210	2.1/5.5mm 1 inch	0.99
#2961	210L	2.1/5.5mm 1.45 inch	0.99
#4351	235	0.7/2.35mm	2.39
#4352	240	1.7/4.0mm	2.09
#0963	250	2.5/5.5mm	0.99
#4354	255	3.3/5.5mm +1mm pin	2.69
#4353	275	1.75/4.75mm	1.99
#5748	208	3.0/6.3mm	1.99

300-30

Are you tired of having every inter-series adapter, except the one you need? Then consider the **300-30** 30 piece RF adapter kit. It contains two each of: BNC Female, BNC Male, TNC Female, TNC Male, N Female, N Male, UHF Female, UHF Male, Mini UHF Female, Mini UHF Male, SMA Female, SMA Male and 6 Pieces Universal Adapter. This is every interseries adapter you are likely to need. And they are nickel plated with gold contacts. Simply screw the two desired ends to the universal adapter to configure your adapter. It comes complete in a soft padded, zippered case.

300-30 *Order #3666* $**89.95**

INLINE DC JACKS

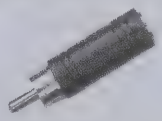
Order#	Model	In/Out Dia.	Mates	Price
#4915	256	1.3/3.5mm	*#0910*	$1.59
#4774	257	2.1/5.5mm	*#0821 #2961*	1.69
#4775	258	2.5/5.5mm	*#0963*	1.79

Item *#4774* shown above.

For additional connectors and adapters please visit: www.universal-radio.com

AUDIO ADAPTERS

MINI-1/4 M
Mini 1/8 inch mono female to 1/4" male.
Order #1434...$**1.99**



MINI-RCA
Mini 1/8 inch (3.5 mm) mono female to RCA.
Order #1428...$**1.99**

RCA-MINI
Female RCA to mini 2 conductor male.
Order #1558...$**1.99**

RCA-RCA
RCA female to RCA female coupler.
Order #0729...$**0.49**

RCA-RCA GL
RCA female to RCA female coupler. Gold.
Order #1054...$**0.99**

1/4M-RCA
1/4 inch mono female to RCA male.
Order #1427...$**1.99**

RCA-1/4 2C
RCA female to 1/4 inch mono male plug.
Order #1418...$**1.69**

MINI-1/4 S
1/8" stereo female to 1/4" stereo male.
Order #1118...$**1.89**

540A
1/4" mono female to 1/8" mono male.
Order #1563...$**1.99**

2.5S-3.5S
1/8" stereo female to submini stereo male.
Order #4526...$**2.69**

3.5S-2.5S
Submini stereo female to 1/8" stereo male.
Order #4525...$**1.99**

3.5M-2.5M
Submini mono female to 1/8" stereo male.
Order #1886...$**1.29**

UG-363 BULKHEAD ADAPTERS

How do I get my antenna feedline into the house? Yes, the age old question. One simple answer is drill a 5/8 inch hole through the wall and use a UG-363 bulkhead adapter of the appropriate length. This useful female to female adapter will accept a PL-259 plug at both ends. Available in 8 lengths. The 1 inch and 12 inch models are shown above.

Order#	Model	Length of Adapter	Price
#3683	UG363- 1	1 Inch	$2.99
#2795	UG363- 2	2 Inches	3.99
#3688	UG363- 3	3 Inches	4.99
#3707	UG363- 4	4 Inches	5.99
#3710	UG363- 6	6 Inches	9.99
#3713	UG363- 8	8 Inches	13.95
#3717	UG363-10	10 Inches	15.95
#3734	UG363-12	12 Inches	18.95

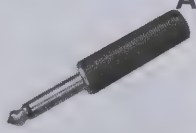
ACY8 ACY9

The **ACY9** allows you to feed two sets of mono headphones, or earphones from one sound source such as a scanner (shown).
ACY9 *#0508* $**3.49**

The **ACY8** is the same, but for stereo sources.
ACY8 *#4648* $**2.99**

RCA CHASS
RCA phono jack chassis mount.
Order #2390...$**0.69**

AUDIO CONNECTORS

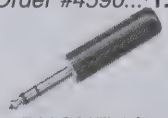


PHONE 1/4M
Phone plug 1/4 inch 2 conductor. Black.
Order #1855...$**1.49**

RED 1/4M
Phone plug 1/4 inch 2 conductor. Red.
Order #4590...$**1.49**

SHLD 1/4M
Phone plug 1/4 inch 2 conductor. Metal.
Order #3042...$**1.79**

PHONE 1/4S
Phone plug 1/4 inch 3 conductor. Black.
Order #0878...$**1.59**



PHONE 3/16
Drake/Collins mic plug 3/16 inch. 3C.
Order #2888...$**3.99**

2288C
Stereo 1/4 inch panel jack. 3C.
Order #2033...$**2.99**

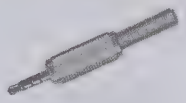
MINI MONO
Mini plug 1/8 inch 2 conductor. Black.
Order #0707...$**0.89**

MINI M SHL
Mini plug 1/8 inch 2 conductor. Metal.
Order #1949...$**1.19**

MINI STERO
Mini plug 1/8 inch 3 conductor. Black.
Order #2310...$**1.09**

SUBMINI MO
Submini plug 3/32 inch 2 cond. Black.
Order #1947...$**1.59**

SUBMINI ST
Submini plug 3/32 inch 3 cond. Black.
Order #2835...$**1.89**



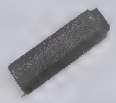
MINI M 4C
Mini plug 1/8 inch 4 conductor. Metal.
Order #6535...$**2.39**

BANANA
Banana plug black.
Order #1425...$**0.79**
Banana plug red.
Order #1017...$**0.79**

RCA INLINE
Inline RCA phono jack. Metal shielded.
Order #2304...$**0.89**

PHONO RCA
Shielded, metal phono RCA plug.
Order #2389...$**0.99**

INL 3.5 3C
Inline jack 1/8 inch 3 conductor. Black.
Order #0257...$**1.19**



INL 3.5 2C
Inline jack 1/8 inch 2 conductor. Black.
Order #4306...$**1.09**

INL 1/4 2C
Inline jack 1/4 inch 2 conductor. Black.
Order #5052...$**1.19**

INL 2.5 2C
Inline jack 3/32 inch 2 conductor. Black.
Order #0155...$**1.29**

INL 2.5 3C
Inline jack 3/32 inch 3 conductor. Black.
Order #2913...$**1.19**

INL 1/4 3C
Inline jack 1/4 inch 3 conductor. Black.
Order #5053...$**1.29**

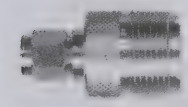
LEGEND: Submini = 3/32 inch = 2.5 mm
Mini = 1/8 inch = 3. mm
1/4 inch = 6.3 mm
Monaural = 2C
Stereo = 3C

SMA ADAPTERS

SMF-BNF BK
SMA female to BNC female - Black.
Order #3164...$**5.98**

SMA F - SO239
SMA female to SO-239 adapter.
Order #0856...$**4.69**

SMA F - BNC F
SMA female to BNC female adapter.
Order #5752...$**3.95**



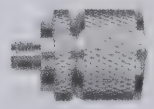
SMA M - SO239
SMA male to SO-239 (UHF) adapter.
Order #2976...$**3.95**

SMA M - BNC F
SMA male to BNC female adapter.
Order #0531...$**4.99**

WXBNC
SMA female to BNC female adapter Black
Order #5908...$**5.95**

SMA F - BNC M
SMA female to BNC male adapter.
Order #0853...$**4.49**

SMA-90°
SMA male to SMA female elbow adapter.
Order #5026...$**3.49**



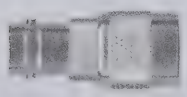
SMA F - PL259
SMA female to PL259 adapter.
Order #0859...$**4.95**

SMA F - SMA F
SMA female to SMA female barrel adapter.
Order #4304...$**2.19**

SMA M - SMA M
SMA male to SMA male adapter.
Order #4563...$**2.29**

SMA M - BNC M
SMA male to BNC male adapter.
Order #4407...$**4.49**

TNC ADAPTERS

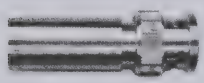


BNC F-TNC M
BNC female to TNC male adapter.
Order #0374...$**3.79**

SO239-TNC
SO239 to TNC male adapter.
Order #0283...$**3.69**

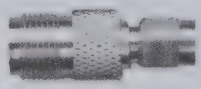
TNC-PL259
TNC female to PL259 adapter.
Order #2196...$**3.99**

MOTOROLA ADAPTERS



MOTO-BNC
Motorola female to BNC male adapter.
Order #1455...$**3.95**

SO-239-MOTO
SO-239 to Motorola male adapter.
Order #4659...$**2.09**

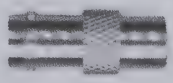


TNC-SMA
TNC Female to SMA male adapter.
Order #4709...$**3.89**

PAL ADAPTERS

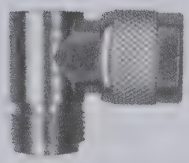
PAL M TO F
PAL male to F female adapter.
Order #1113...$**1.79**

PAL F TO F
PAL female to F female adapter.
Order #1156...$**2.29**

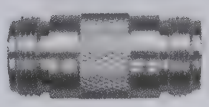


BNCF-PAL M
BNC female to PAL male adapter.
Order #4927...$**2.99**

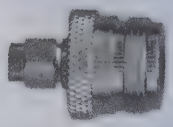
N ADAPTERS



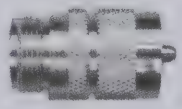
N ELBOW MF
N male to female elbow adapter.
Order #0405...$**6.95**



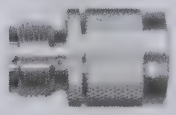
UG-29
N female to N female barrel adapter.
Order #2760...$**3.95**



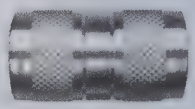
SMA M - N
SMA male to N female adapter.
Order #4401...$**4.19**



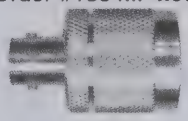
UG-83
N female to PL-259 adapter.
Order #1384...$**4.95**



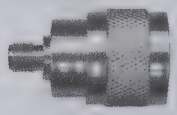
UG-146
SO-239 to N male adapter.
Order #3076...$**4.95**



UG-57
N male to N male adapter.
Order #0037...$**4.95**

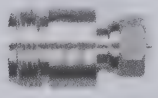


BNC TO N
BNC female to N male adapter.
Order #0931...$**5.99**

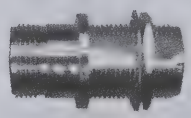


SMA TO N
SMA female to N male adapter.
Order #4406...$**4.95**

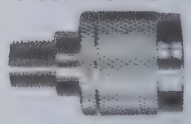
UG-349/AU
N female to BNC male adapter
Order #4571...$**4.95**



N FEM-F ML
N female to F male adapter.
Order #4576...$**3.95**

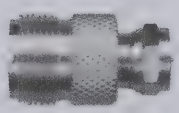


UG-30
N female to N female bulkhead adapter.
Order #3355...$**5.95**



F TO N ML
F female to male N adapter.
Order #4532...$**3.89**

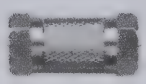
F ADAPTERS



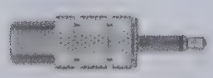
SO239 TO F
SO239 to F male adapter.
Order #2814...$**3.19**

F TO PL259
F female to PL259 adapter.
Order #3111...$**2.99**

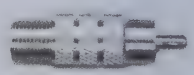
F ANGLE
F Male to F Female 90° elbow.
Order #5333...$**0.99**



F M to F M
F Male to F Male adapter.
Order #3665...$**0.99**



F TO MINI
F Female to 1/8" mini plug.
Order #5177...$**2.69**



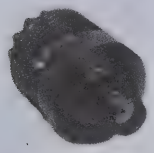
F to RCA M
F Female to RCA Male adapter.
Order #5179...$**1.89**

RCA F-F M
RCA female to F male adapter.
Order #4582...$**1.29**

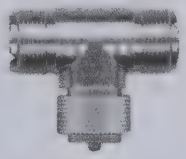
F TO BNC M
Female F to BNC male.
Order #6686...$**2.89**

F-81
F female to F female adapter. Gold.
Order #2081...$**1.69**

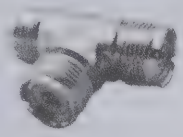
PL259 (UHF) ADAPTERS



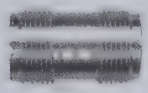
SO2-SMF BK
SMA female to SO-239 - Black.
Order #6021...$**4.98**



UHF-T
UHF "T" adapter. Male and 2 female.
Order #1142...$**3.95**

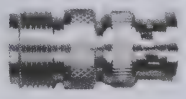


UHF-T 3F
UHF "T" adapter. 3 female.
Order #2351...$**3.95**

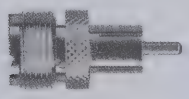


PL-258
Double female barrel adapter.
Order #2791...$**1.99**

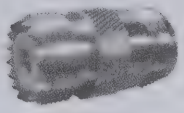
UG-363-2
Double female bulk head adapter. 2 inch.
Order #2795...$**3.99**



UG-255
SO-239 to BNC male adapter.
Order #2122...$**2.95**

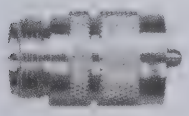


SO239-RCA
SO-239 to RCA male adapter.
Order #2118...$**1.99**

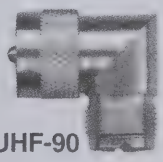


N SO239
N female to SO-239 adapter.
Order #5090...$**4.89**

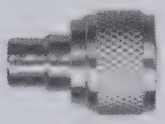
SO239-MINI
SO-239 to mini 1/8" (3.5mm) male.
Order #1619...$**3.49**



UG-83
N female to PL-259 adapter.
Order #1384...$**4.95**

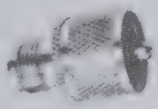


UHF-90
SO-239 to PL259 90° elbow adapter.
Order #1121...$**3.49**

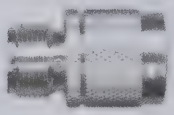


RCA-PL259
RCA female to PL-259 adapter.
Order #2690...$**1.99**

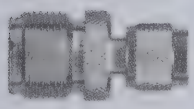
BNC-PL259
BNC female to PL259 adapter.
Order #2124...$**4.95**



TNC-PL259
TNC female to PL259 adapter.
Order #2196...$**3.99**



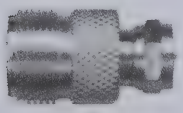
UG-146
SO-239 to N male adapter.
Order #3076...$**4.95**



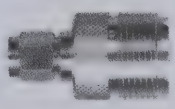
MUHF-SO239
SO239 to Mini UHF male adapter.
Order #0926...$**4.19**

SMA F-SO239
SMA female to SO-239 (UHF) adapter.
Order #0856...$**4.69**

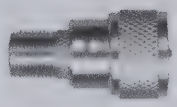
SMA F-PL259
SMA female to PL259 adapter.
Order #0859...$**4.95**



SO239 TO F
SO239 to F male adapter.
Order #2814...$**3.19**



SMA M - SO239
SMA male to SO-239 (UHF) adapter.
Order #2976...$**3.95**

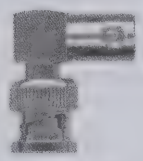


F TO PL259
F female to PL259 adapter.
Order #3111...$**2.99**

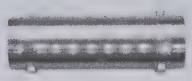
BNC ADAPTERS

BNC T FMF
BNC "T" male to two females.
Order #2646...$**2.69**

BNC T FFF
BNC "T" female to two females.
Order #2653...$**2.19**

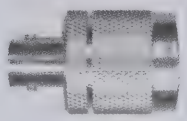


BNC-90°
BNC male to BNC female elbow adapter.
Order #0335...$**4.95**



BNC F - BNC F
BNC female to BNC female barrel adapter.
Order #2654...$**.99**

BNC M - BNC M
BNC male to BNC male barrel adapter.
Order #1577...$**2.99**

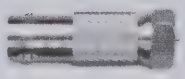


BNC TO N
BNC female to N male adapter.
Order #0931...$**5.99**

BNC F-PL259
BNC female to PL259 adapter.
Order #2124...$**4.95**

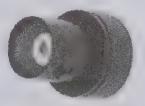
SMF-BNF BK
SMA female to BNC female. Black.
Order #3164...$**5.98**

RCA BNC M
RCA female to BNC male adapter.
Order #5087...$**1.89**

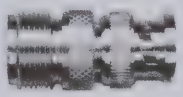


BNCF TO FM
BNC Female to F male adapter.
Order #2942...$**3.09**

UG349/AU
N female to BNC male adapter.
Order #4571...$**4.95**

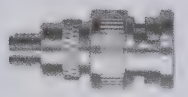


BNCJ-SMAP
BNC female to SMA male low profile-Black.
Order #0292...$**9.95**

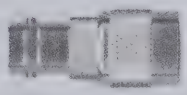


UG-255
SO-239 to BNC male adapter.
Order #2122...$**2.95**

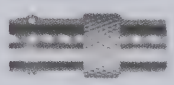
BNCF-SO239
BNC female to SO239 adapter.
Order #0658...$**2.49**



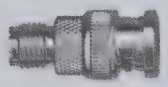
SMA F-BNC M
SMA female to BNC male adapter.
Order #0853...$**4.49**



BNC F-TNC M
BNC female to TNC male adapter.
Order #0374...$**3.79**



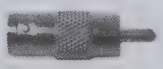
BNCF-PAL M
BNC female to PAL male adapter.
Order #4927...$**2.99**



MINIU-BNCM
Mini-UHF female to BNC male adapter.
Order #5731...$**2.99**

SMA M - BNC F
SMA male to BNC female adapter.
Order #0531...$**4.99**

BNCF TO MI
BNC female to mono 1/8" mini plug.
Order #4546...$**2.49**



BNC-RCA
BNC female to RCA male adapter.
Order #2373...$**1.99**

ANTENNA WIRE

■ **14 GAUGE STRANDED COPPER**
Excellent and very malleable. 7/22 stranded construction. .072 nom. O.D.
Order #2588 ..... **20¢ per foot**

■ **14 GAUGE COPPER-CLAD STEEL WIRE**
Hard drawn non-stretch steel center for excellent strength and copper-clad for protection and conductivity. Solid. .064 nom. O.D.
Order #2637 ..... **20¢ per foot**

■ **14 GAUGE ENAMELED COPPER WIRE**
Quality solid copper wire for shorter antenna applications (under 100 ft.). Enameled coating protects from the elements. .064 nom. O.D.
Order #2584 ..... **25¢ per foot**

■ **14 GAUGE FLEXWEAVE COPPER WIRE**
This ultra-flexible antenna wire will not kink or tangle. Can be tied and untied to insulators without soldering. Popular for portable and backpack antennas. Sold in 100 foot length.
Order #4608 ..... **$21.95**

COAXIAL CABLE

■ **RG-58A/U 50 OHM**
This is standard grade coax cable. .195 nom. O.D. -3.4 dB/100 ft.@100 MHz.
Order #2619 ..... **25¢ per foot**

LMR®-200 (low loss with foil)
Order #3603 ..... **69¢ per foot**

■ **RG-8/X 50 OHM**
This very popular flexible cable has similar low loss properties of the bigger RG-8, but without its thickness. Great for shortwave antennas. .242 nom. O.D. 3.0 dB/100 ft.@100 MHz.

Black jacket RG-8/X
Order #2247 ..... **36¢ per foot**

LMR®-240 (solid center conductor)
Order #3604 ..... **79¢ per foot**

LMR®-240 Ultra (stranded center conductor)
Order #3605 ..... **99¢ per foot**

■ **RG-213 50 OHM**
Thicker lower loss coax cable with special non-contaminating jacket which will provide longer life. .405 nom. O.D. -2.0 dB/100 ft.@100 MHz.
Order #2929 ..... **89¢ per foot**

■ **RG-8/U-TYPE LOW LOSS 50 OHM**
Super low loss type RG-8 coax. For long VHF-UHF runs. .405 nom. O.D.

BURY-FLEX™ (foil and stranded center)
Order #5297 ..... **$1.19 per foot**

LMR®-400 (foil and solid center)
Order #3606 ..... **$1.09 per foot**

LMR®-400 Ultra Flex (foil and stranded center)
Order #3607 ..... **$1.59 per foot**

LMR® is a registered trademark of Times Microwave Systems.

LADDER LINE

In 300 ohm or 450 ohm on 100 foot spools.

300 Ohm 18 g ¼" sepr.	*Order #2647*	**$39.95**
450 Ohm 18 g ¾" sepr.	*Order #3028*	**$29.95**

PREASSEMBLED COAX CABLES

Do not let your coax cable be the *weak link* in your radio installation. The most popular lengths and types are shown below. See website for full list.

RG-8X CABLES

Moderate price, coupled with very low loss and good flexibility combine to make this a favorite among hams and SWL's. (.242" O.D.). Our biggest seller. With PL-259 connector at each end.

Model	Length	Order#	Price
RG-8/X 12"	1 foot	*#2577*	$5.49
RG-8/X 18"	1.5 feet	*#2578*	5.99
RG-8/X 24"	2 feet	*#2579*	6.99
RG-8/X 36"	3 feet	*#2580*	6.99
RG-8/X 72"	6 feet	*#3848*	7.95
RG-8/X 12'	12 feet	*#3849*	9.95
RG-8/X 18'	18 feet	*#3850*	14.95
RG-8/X 25'	25 feet	*#0539*	19.95
RG-8/X 50'	50 feet	*#0497*	24.95
RG-8/X 75'	75 feet	*#0512*	34.95
RG-8/X 100'	100 feet	*#0515*	39.95

RG-213/U MIL-SPEC

ABR Industries RG-213/U *is* expensive but handles up to 3400 watts, is 87% efficient and very low loss. Non-contaminating UV resistant, direct burial jacket. Stranded center. PL-259 to PL-259.

Model	Length	Order#	Price
2213APL 6	6 feet	*#6263*	$24.95
2213APL 25	25 feet	*#6264*	44.95
2213APL 50	50 feet	*#6265*	69.95
2213APL100	100 feet	*#6266*	124.95

ABR 240 TYPE CABLES

ABR Industries 240-UF is the same 0.242 inch diameter and flexibility as RG-8X, but is 30% lower loss and is double shielded. The 96% TC braid and second 100% foil shield reduces noise interference. Non-contaminating UV resistant, direct burial jacket. Stranded center. PL-259 to PL-259.

Model	Length	Order#	Price
218XATCP 1	1.5 foot	*#6804*	$16.95
218XATCP 3	3 feet	*#6243*	18.95
218XATCP 6	6 feet	*#6244*	19.95
218XATCP 25	25 feet	*#6245*	29.95
218XATCP 50	50 feet	*#6246*	37.95
218XATCP 75	75 feet	*#6254*	47.95
218XATCP100	100 feet	*#6670*	57.95

ABR 400 TYPE CABLES

ABR Industries 400-UF a thicker cable at 0.405" OD (same as RG-8). But it has very low loss and is double shielded. The 96% TC braid and second bonded 100% foil shield reduces noise interference. Non-contaminating UV resistant, direct burial jacket. Stranded center. PL-259 to PL-259.

Model	Length	Order#	Price
25400FPL 1	1.5 foot	*#6812*	$18.95
25400FPL 3	3 feet	*#6813*	21.95
25400FPL 6	6 feet	*#6814*	24.95
25400FPL 25	25 feet	*#6817*	44.95
25400FPL 50	50 feet	*#6818*	72.95
25400FPL 75	75 feet	*#6819*	99.95
25400FPL100	100 feet	*#6820*	119.95

GROUND STRAP

This raw groundstrap cable comes in a 25 foot roll. It is 14 gauge and 1/2 inch wide.
Ground Strap *Order #4607* **$18.95**

We also sell ABR Industries groundstrap cables that terminate to ring terminals.

Model	Length	Order#	Price
ABR233/2-4X1	1 foot 10g	*#6255*	$5.95
ABR233/2-4X3	3 foot 10g	*#6256*	7.95
ABR233/2-4X5	5 foot 10g	*#6257*	8.95
ABR235-5X1	1 foot 7g	*#6258*	7.95
ABR235-5X3	3 foot 7g	*#6259*	9.95
ABR235-5X10	10 foot 7g	*#6261*	19.95

GROUND WIRE

Ground wire should be kept as short and as straight as possible and go to a ground rod (at least 5 ft.), or a cold water pipe (*not* a gas pipe!).

■ **GROUND WIRE - 6 GAUGE SOLID COPPER**
Order #0424 ..... **99¢ per foot**

ROTOR CABLE

8 conductor stranded with UV resistant PVC outer jacket.

■ **WCR301**
2 x 18 g and 6 x 22 g for runs under 125 feet.
Order #1931 ..... **69¢ per foot**

■ **WCR302**
2 x 16 g and 6 x 18 g for runs under 225 feet.
Order #1310 ..... **79¢ per foot**

■ **WCR304**
2 x 14 g and 6 x 18 g for runs under 325 feet.
Order #4371 ..... **99¢ per foot**

PREMIUM LMR®-240 CABLES

You have spent four figures on your radio and have a great antenna. Finish the system with genuine Times-Microwave low loss LMR®-240 *Ultra-Flex* cables. These cables are constructred and individually tested by Universal and use high quality *Lands Precision* silver plated PL-259s with soldered silver tips. Same size as RG-8X (0.242") but with much lower loss *and* higher capacity.

Model	Length	Order#	Price
240U PP 1	1 foot	*#6603*	$12.95
240U PP 3	3 feet	*#5716*	19.95
240U PP 6	6 feet	*#6604*	20.95
240U PP 9	9 feet	*#6605*	21.95
240U PP 12	12 feet	*#6606*	24.95
240U PP 25	25 feet	*#6607*	31.95
240U PP 50	50 feet	*#6608*	49.95
240U PP 75	75 feet	*#3775*	69.95
240U PP100	100 feet	*#6631*	89.95

LMR® is a registered trademark of Times Microwave Systems.

ANTENNA ROPE

This double braided, color-sealed, black polyester antenna rope will not be weakened by decay or mildew and is abrasion resistant. The braided jacket protects from ultraviolet light. Sold in 100 foot rolls.

3/32"x100'	*Order #1397*	$ 9.95
1/8"x100'	*Order #2624*	11.95
3/16"x100'	*Order #2263*	14.95
5/16"x100'	*Order #3835*	19.95

Please visit our website for additional cable types plus attenuation and power capacity tables.
www.universal-radio.com

INTRODUCTION TO AMATEUR RADIO

Amateur radio is one of the most exciting and popular pastimes in the world. There are over one million "HAMS" operating from every end of the globe. You can "meet" a coal miner in Germany, a housewife in Australia, a missionary in India, or a research scientist in Antarctica ... all without leaving your living room.

The first Ham band starts at 1800 kHz; not far from the top end of the "AM" band. There are nine additional bands available to hams throughout the shortwave (H.F.) portion of the radio spectrum. Unlike "AM" broadcast signals, shortwave signals have the ability to consistently travel great distances. Shortwave ham signals will reflect (refract) off the invisible layer above the earth called the ionosphere. Hams operating on the amateur shortwave bands have the ability to talk all over the world. Beyond the shortwave ham bands lies an area of the radio spectrum called VHF (Very High Frequency). Hams also have special bands that they can talk on in the VHF region, UHF region and even above!

While long distance communications does occasionally take place on the VHF ham bands, these bands are usually used for local communications. Many hams have portable ("walkie-talkie") or mobile VHF radios to talk to other hams in their local area using "repeaters" to extend range. Above the VHF portion of the radio spectrum lie still higher frequencies. Hams have additional bands in this region. Hams use UHF for local contacts, transmission of TV signals, satellite communications and experimentation.

Hams use several methods to communicate with each other. When ham radio began all hams utilized Morse code. Morse remains a popular mode among amateur radio operators. Transmission by Morse code is an efficient, reliable and fun way to contact distant stations. Morse code operators use a set of standard abbreviations and procedures that virtually eliminates the language barrier. TNX FOR QSO OM ES 73 means "thank you for the contact and best wishes" in any language! Hams also operate "phone" (voice). On the shortwave bands, hams use a special transmission mode called "single side band" or SSB to transmit greater distances and more efficiently use their allocated frequencies. A third method that hams use to communicate is called radioteletype (RTTY). This mode requires extra equipment. In order to communicate by RTTY, each operator previously had RTTY equipment which roughly resembled a typewriter. Today personal computers can be adapted for RTTY work. In this mode the hams simply type their messages back and forth. A new mode called Packet permits the high speed interchange of messages, data and programs between hams. Data modes such as PSK31 and JT65 can even transmit text messages during marginal conditions. Hams can even send pictures back and forth to each other over great distances! These modes are referred to as slow-scan TV (SSTV) and facsimile (FAX). But this is only the beginning! There are several special (US, Japanese and Russian) satellites circling the earth that hams can use. Hams transmit their signal into the satellite, then the satellite retransmits the signal back to earth, thus extending the "range" by a factor of 1000+! Some hams even use the moon to bounce their signals to a distant ham! The International Space Station has an amateur radio station aboard. Occasionally the *International Space Station* carries a crew member who is a ham. NASA allows astronaut hams time to communicate with their earthbound fellow hams! Imagine the excitement of talking to the *International Space Station* as it passes overhead!

There are many aspects of amateur radio ... truly something for everyone! Many amateurs like to experiment (or just tinker!) with various antennas or circuits, others enjoy talking to distant stations (called working "DX"). Still others prefer to communicate with other local hams or experiment with the transmission of text or pictures.

You will meet many people through amateur radio. There are hams from every walk of life and every age. Many famous people are also hams including: Walter Cronkite, Ronnie Milsap, Joe Walsh, Patti Loveless, Priscilla Presley, Gary Shandling, Marlon Brando, Chet Atkins, Tony England, Owen Garriott, Joe Rudi and Art Bell.

Amateurs do more than communicate for pleasure and relaxation. In any civil emergency, where communications are disrupted, amateur radio operators are the first on the scene with trained people and reliable communications channels both locally and to remote locations. Emergency organizations like ARES (Amateur Radio Emergency Service) are groups of ham operators who volunteer themselves and the use of their equipment for county and community emergencies. They work with the Red Cross, Disaster Services, and the Federal Emergency Management Agency as well as local health, welfare and safety agencies. Examples of recent events where hams have provided important services are: the California earthquake and hurricane Katrina. Hams also provide communications for marathons, road rallies, charity drives and similar civic activities. Amateur operators also work closely with weather bureaus to spot tornados and report severe weather.

There are over 1.6 million hams worldwide, operating from nearly every country on earth. In the U.S.A. alone there are over 700,000 amateurs. Amateur radio operators are required to obtain a license from the government before talking on the air. Getting your first amateur radio license is not difficult. Effective April 15, 2000 the license structure for new American hams became simplified and the code requirement reduced or eliminated from some licenses. In late 2006 the Morse code requirement was completely dropped for *all* license levels!

TECHNICIAN LICENSE

The Technician Class is the entry level VHF-UHF class. This license offers great privileges and requires passing a 35 question multiple choice written test. No code proficiency is required! This test is administered by qualified volunteer examiners in your area several times a year. When you pass this test you will be granted full use of all the VHF (and higher) ham bands in any mode ... including voice! A technician license will permit operation on the popular 144 MHz band, called 2 meters. A variety of inexpensive mobile and handheld 2 meter radios are available. Most cities have 2 meter "repeaters" sponsored and maintained by local amateur clubs. The repeater antenna is usually on a tall building or tower. A repeater takes an input signal and then rebroadcasts it, substantially increasing the effective range of your radio! Many repeaters also have "auto-patch" capability to make phone calls from your radio. The technician license will even allow you to operate through the new generation of ham satellites (which act like repeaters!) giving you worldwide range on VHF! At press time (04/2018) there is an effort underway to expand Technician privileges to some of the HF (shortwave) bands, but this has not been finalized.

GENERAL LICENSE

The general class "ticket" is the most popular class of license. This level requires a 35 question multiple choice written test. There is no longer a code requirement. The general "ticket" dramatically expands your operating privileges! You now can operate all modes on all ham bands including voice on *all* the shortwave (HF) phone bands for global communications. Many hams find the privileges of the general class adequate and do not seek to upgrade to the extra license.

EXTRA LICENSE

There are special band segments reserved for holders of the extra class license. Another written 50 question multiple choice exam is required for the prestigious extra class.

GETTING STARTED

There are several ways to get your first license. Universal has a variety of books to help you learn the "theory" of ham radio.

Many prospective hams buy a communications receiver (or transceiver) while they are studying for their "ticket". Universal has a nice selection of new and used receivers. A good receiver may be helpful for several reasons. You will be able to listen to other amateurs, and start to learn the "language" and "buzz-words" of ham radio. Getting your first station on the air doesn't have to be expensive! Universal has a nice selection of inexpensive used equipment. Amateur radio equipment does not require any special wiring in your home. Antennas can be large, expensive and elaborate, or simple, unobtrusive and inexpensive. Many new general class hams string up a "dipole" antenna which can be purchased for about $45. You are now ready to begin the lifetime adventure of amateur radio. A couple of helpful websites to visit are:

www.ARRL.org
www.DXing.com

ICOM

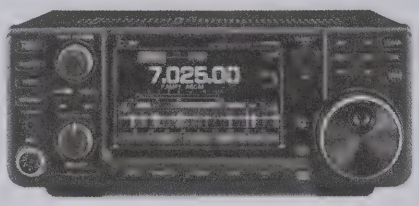
IC-718

- 160-10 Meters
- 101 Memories
- RIT
- Noise Blanker
- VOX Function
- IF Shift
- Auto Notch
- 10 Hz Readout
- UT-106 DSP standard
- Full Break-in CW
- RF Attenuator
- CW Keyer
- Front Firing Speaker
- 100 W CW/SSB Output
- 40 W AM Output
- Digital S/RF Meter

The **IC-718** covers 160-10 meters and features IF Shift, Adjustable Noise Blanker and DSP (UT-106). You get 99 regular memories and 2 scan edge memories. The transmit section features microphone compression and you get 5 to 100 watts of all mode output (4 to 40 watts AM). A Morse keyer is built-in. The meter shows output power, ALC and VSWR. Operating HF has never been easier. Requires 12 VDC at 20 Amps. With HM-36 hand mic. The UT-106 DSP unit is now factory installed. The reliable IC-718 is proof that HF amateur operating does not need to be complicated. 9.67 x 3.8 x 9.5 inches 8.4 lbs.

List $838.00 *Order #0718* **Call for price.**

IC-7300



- IF DSP
- Variable RF Out
- Waterfall
- Built In Tuner
- 101 Memories
- RTTY Decode
- Audio Scope
- Touch Screen Interface
- Direct Sampling SDR
- SWR Graphic Display
- SD Card Slot
- TFT Color Display
- Spectrum Display
- Voice Memory

The **Icom IC-7300** HF plus 6 meter 100 watt transceiver hosts new capabilities and technologies for its class. Instead of the conventional superheterodyne system, a direct RF sampling approach is used. The brilliant color TFT touch screen provides complete operational status including a stunning real-time spectrum display with waterfall. There is a built-in tuner. Other features include: Voice memory, CW/RTTY memory keyer functions, RTTY decode, SD card slot, 15 Bandpass Filters, VOX, Break In, NB/NR, Notch, RIT/XIT, USB for CI-V and audio I/O, digital noise reduction and 101 memories. Requires 12 VDC at 21 Amps. 9.45 x 3.75 x 9.37 inches. With HM-219 hand mic. Currently our best selling HF rig.

List $1699.95 *Order #0173* **Call for price.**

IC-7610

- Memory Pad
- 101 Memories
- 100 Watts
- ±0.5 PPM Stability
- 1 Hz Readout
- RTTY Demod
- Dual Watch
- Built-in Antenna Tuner
- Full Break-in CW
- Dual Spectrum Display
- Direct Sampling SDR
- 7" Color Display
- Twin Digital PBT
- Ext. Monitor Support

The **IC-7610** provides professional performance in the 160 to 6 meter bands. It introduces dual RF direct sampling receivers achieving 100dB RMDR. Each receiver has separate DIGI-SEL preselectors, separate Band Pass Filter networks, feed two separate A/D converters into the FPGA. Comes with a high-speed, high-resolution, real-time spectrum scope on a 7-inch color display. The IC-7610 employs an RF direct sampling system, where signals are converted to digital data and processed by the Field-Programmable Gate Array to reduce distortion that naturally occurs in the various mixer stages found in traditional superheterodyne receivers. Other enhancements include: SD memory card, I/Q output, Memo Pad, Quick split function, Dual Watch, RF gain and squelch controls, RIT and TX variable, UTC/local clock with timer function, 1 Hz pitch tuning and display, Dial lock, Adjustable dial brake, External speaker jacks for Main and Sub receivers, Screen saver function, Multifunction meter and Auto tuner. With HM-36 hand mic and DC cord. Requires 12 VDC at 23 Amps.

List $4278.00 *Order #0610* **Call for price.**

IC-9100

The **Icom IC-9100** offers cutting-edge performance on HF, 6 meters and 2 meters with 100 watts plus 440 with 75 watts. The UX-9100 band unit can be added for 1200 MHz, 10 watt operation. The IC-9100 can simultaneously receive on two different bands and works as if there are two independent receivers in one radio. Each main and sub-receiver has a dedicated DSP unit providing flexible digital IF filters, AGC time constant, twin PBT, manual and auto notch filter, noise reduction, noise blanker, etc. The USB port can transfer modulation, audio, RTTY demod and DV mode data. The satellite mode synchronizes the uplink and downlink frequencies and shifts the frequency with the same tuning step. Twenty alphanumeric satellite memories store frequency, mode and tone. A built in automatic tuner covers the HF bands plus 6 meters. Other refinements include electronic keyer jack on the front panel, RTTY demodulator, four CW memories, voice squelch control, band edge beep, built in voice synthesizer. Requires 13.8 VDC at 24 Amps.

List $2650.00 *Order #5091* **Call for price.**

✔ Please see the **Icom IC-7200** on page 53.

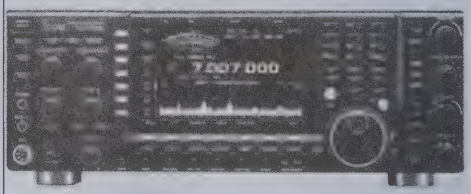
IC-7100

- IF DSP
- Variable RF Out
- Extended Rx.
- Noise Blanker
- 505 Memories
- D-Star DV Mode
- Touch Screen Interface
- Slant Top Controller
- SWR Graphic Display
- SD Card Slot
- Speaker on Controller
- Notch/RIT/Attenuator

The **IC-7100** covers 160-6 meters, 2 meters and even 440 MHz. DSP at the IF level is the cornerstone of this impressive multi-bander. RF power is HF 100 watts, 50 MHz 100 watts, 144 MHz 50 watts and 430 MHz 35 watts. Extended receive provides coverage from 30 kHz to 199.999 MHz and 400-470 MHz. Enjoy ±0.5 ppm frequency stability and 505 memory channels. There is a built in radioteletype decoder. And D-Star is built in! The remote head, with built-in speaker, offers full control of the radio and features jacks for key, speaker and microphone. Requires 13.8 VDC at 22 Amps. Antenna inputs for HF/6M and VHF/UHF. With HM-198 hand mic, DC power cable, OPC-2253 11 foot separation cable, 13 pin accs. cable and USB cable.

List $1325.00 *Order #3071* **Call for price.**

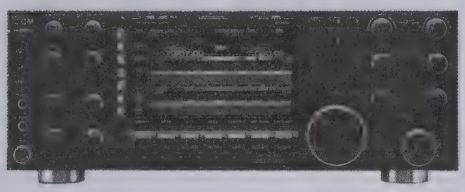
IC-7700



The **Icom IC-7700** was designed from the start to be the ultimate contest transceiver. It features separate DSP units (of the same type used in the famous IC-7800) for the radio and the spectrum display. You will enjoy a +40dBm 3rd order intercept point and ultra wide dynamic range. There is an automatic tracking preselector to reject out-of-band interference. The push-pull 48VDC MOSFET amplifiers provide powerful 200W of output power at full duty cycle with low IMD in all bands. The wide 7 inch diagonal color TFT LCD, 800x480 pixel display is dazzling. The front panel has two USB ports (for optional USB PC keyboards and USB cards). The rear panel offers a host of I/O connections including an SP DIF IN/OUT, Ethernet jack and VGA monitor jack. 120 VAC. 16.8 x 5.5 x 16.6" 53 lbs. With 19 inch rack mounting brackets, but mic not included.

List $7800.00 *Order #0277* **Call for price.**

ICOM IC-7851



- 200W Output
- Waterfall
- Dual Receive
- Spectrum Scope
- Automatic Tuner
- Digital Voice Recorder
- High Stability OCXO
- 7" Dia. Color TFT
- Voice Synthesizer
- RTTY/PSK31 Demod

The **Icom IC-7851** perfects 160 to 6 meter operation with new features such as a 1.2 kHz optimized roofing filter. The up-conversion design supports a dynamic range that outperforms competitors' similar models in the 2 to 10 kHz separation tests. The IC-7851 employs a direct digital oscillator (DDS) with a voltage controlled SAW oscillator (VCSO). This 1st LO design sets a new benchmark for phase noise with -150dBc/Hz at 10kHz offset (and -140dBc/Hz at 1kHz offset). The new high-resolution waterfall screen shows the changing amplitude of frequencies over time. An enhanced spectrum scope promotes fast and accurate scan and can be operated with PC mouse via USB port. A dual scope function shows simultaneous activity in both bands. The IC-7851 comes with: 64 Mb compact flash, AC cord and rack mount handles. 120 VAC. Microphone not included. 16.8 x 5.5 x 16.5 inches. 51 lbs.
List $16000.00 *Order #4557* **Call for price.**

CTX-10 SPECIFICATIONS

Transmit Bands:	80-10 meters CW/SSB
RF Power Output:	1, 5 or 10 Watts
Receive Coverage:	150 kHz - 30 MHz
Receive Modes:	USB/LSB/CW/AM
Receive Bandwidths:	AM 5/7.5/15 kHz SSB 1.8/2.2/2.6 kHz CW 0.5/1/1.8/2.2/2.6 kHz
Receive Auto Bandwidths:	AM 5/7.5/15 kHz SSB 1.8/2.6 kHz CW 1/0.5 kHz
Tuning Resolution:	1 MHz, 100, 10, 1 kHz 100, 10 Hz.
HF Sensitivity MDS:	-135 dBm (500 Hz CW)
HF Sensitivity SSB:	-110 dBm (2600 Hz SSB)
I-Q sampling:	32-bit DSP to digital audio CODEC.
Audio System:	8 Ohm 0.8 watts to 1.2x1.6" Internal Speaker or External Speaker jack
AGC Attack Time:	Slow/Medium/Fast
Antenna Input:	BNC 50 Ohm
Display Types:	OLED 64x128
DC Power Jack:	10-20 VDC 2.5 x 5mm
DC Power:	2.0 Amps @12VDC
Batteries:	3 #18650 Li-ion 2.6 Ah
USB Mini-B 2.0 Jack:	I-Q data & radio control Windows spectrum scope
ESD Protection:	ESD diodes at antenna, power jacks, USB port, keys and knobs.
Physical:	5.61 x 1.55 x 6" 2 lbs.

ICOM Optional Accessories

Order #	Model	Item Description	List Price	Your Price	IC-718	IC-7100	IC-7300	IC-7200	IC-7600	IC-7700/7851	IC-9100
2606	AH-2b	Mobile Antenna	$599.00	$389.98	■	■	■	■	■		■
3702	AH-4	Mobile HF+6M Auto Tuner	345.00	299.95	■	■	■	■	■		■
2715	AH-710	Folded Dipole Antenna 160-10m	430.00	319.95	■	■	■	■	■	■	■
3438	AT-180	HF+6M Auto Tuner [pg. 76]	599.00	499.95	■	■	■	■			
2777	CR-338	High Stability Crystal ±0.5 ppm	105.00	79.95	■						
5782	CS-7100	Programming Software	50.00	39.95		■					
2771	CT-17	CI-V Level Converter	190.00	144.95	■	■	■	■	■	■	■
0798	FL-430	6.0 kHz Roofing Filter	125.00	99.95							■
0792	FL-431	3.0 kHz Roofing Filter	125.00	99.95							■
0327	FL-222	1.9 kHz SSB Filter 455 kHz	300.00	219.95	■						
1951	HM-36	Hand Mic with Up / Down	100.00	74.95	■			■	■	■	■
0311	HM-151	DTMF Hand Mic with Up / Down	145.00	104.95		■					
5836	HM-198	Hand Mic with Up / Down	55.00	39.95		■					
4219	HM-219	Hand Mic with Up / Down	58.00	44.95			■				
1088	MB-23	Carrying Handle	20.00	14.95	■						
3431	MB-62	Mobile Mounting Bracket	50.00	39.95		■					
5957	MB-105A	Controller Mounting Bracket	30.00	24.95		■					
5147	MB-118	Mobile Mounting Bracket	30.00	22.95			■				
5480	MB-123	Carrying Handle	35.00	28.95			■				■
6052	MBA-1	Controller Mounting Bracket	40.00	32.95		■					
2650	MBF-1	Suction Bracket for MBA-1	85.00	69.95		■[2]					
1120	OPC-589	Adapter (8 pin to modular mic)	45.00	34.95		■					
3436	OPC-599	Adapter (7+8 pin to 13 pin acc)	80.00	59.95	■	■	■	■			
1196	OPC-1457	DC Power Cable	89.00	69.95		■		■	■		■
4735	OPC-1529R	Serial data cable to PC.	41.00	31.95		■					■
6075	OPC-2253	Separation Cable 11.5 Ft. (3.5m)	75.00	59.95		■					
1561	OPC-2254	Separation Cable 16.4 Ft. (5.0m)	95.00	69.95		■					
6638	OPC-2361	DC Power Cable	66.00	47.95	■[4]		■				
4014	PS-126	Power Supply 13.8V at 25A	Discontinued		■[4]	■	■	■	■		■
5644	SM-30	Desk Microphone With Up/Down	195.00	139.95	■	■[1]	■	■	■	■	■
3839	SM-50	Desk Microphone With Up/Down	400.00	299.95	■	■[1]	■	■	■	■	■
1696	SP-23	External Speaker with Filters	330.00	239.95	■		■	■	■	■	■
0233	SP-33	External Speaker	120.00	99.95	■	■	■	■	■	■	■
5917	SP-34	External Speaker with Filters	465.00	319.95			■	■	■	■	■
5874	SP-35	External Speaker Mobile	77.00	59.95		■					
3097	UT-106	DSP NR/Notch	195.00	149.95	■[3]						
4740	UT-121	D-STAR option	229.00	169.95							■
5322	UX-9100	1.2 GHz Band Module	824.00	659.95							■

[1]Requires OPC-589 [2]Requires MBA-1 [3]Now standard [4]S/N >42000

CommRadio CTX-10

This device has been approved by the F.C.C. We are accepting orders now. The photo and information shown are preliminary and subject to change. Availability is projected for May 2018. Please watch website for updates.

The **CommRadio CTX-10** blends high performance, internal SDR technology, high efficiency circuit design, compact size and simple operation. This multi-mission QRP radio is ideal for field use and emergency operations. Transmitter covers 80-10 meter amateur bands with output power selectable at 1, 5 or 10 watts. The new design uses ruggedized land mobile power amps in push-pull. Every aspect of the radio design is optimized for low power consumption. The efficient and sharp OLED display is readable in low or high lighting conditions. The radio has *three* built-in #18650 3.7V 2600 mAh Li-ion batteries providing 28.8 watt-hours of operation. A built-in intelligent charger provides seamless power management. The general coverage receiver section uses multiple preselectors for optimized reception from 150 kHz to 30 MHz. 64 Memories are available. An integrated antenna tuner enhances portability. The premium tuning optical encoder is rated at a million revolutions. The enclosure is aluminum with machined aluminum knobs. USB 2.0 port for I/Q and updates. Includes USB cable, DC power cord and manual. Microphone sold separately. Only 5.61 x 1.55 x 6" 2 lbs. Made in U.S.A.
List $1195.00 *Order #6010* **Call for price.**

YAESU

FT-818ND

- Dual VFOs
- VOX & RIT
- IF Shift
- 60 Meters
- 200 Memories
- CTCSS/DCS
- With Li-Ion Battery
- Spectrum Display

The **Yaesu FT-818ND** is an enhanced version of the iconic FT-817ND. It is a fully self-contained, battery-powered, 6 Watt QRP amateur MF/HF/VHF/UHF transceiver for portable/camping/mountain top use. Providing coverage of the 160-10 meter amateur bands (*including* 60 meters) plus the 6 M, 2M and 70 cm bands, the FT-818 includes operation in the SSB, CW, AM and FM modes. It may operate from the included SBR-32 Li-Ion battery, 13.8 VDC or 8 AA cells (not supplied) and provides up to 6 watts output when on external DC power (2.5 watts on cells). Includes built-in TCXO-9! With MH-31A8J mic.

List $980.00 *Order #0818* **Call for price.**

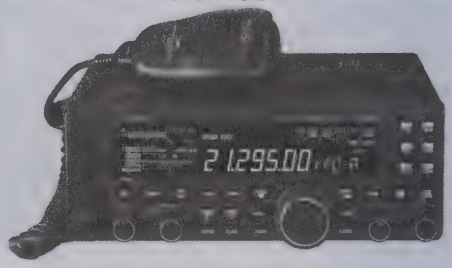
FT-857D

- 160-2 M + 440
- Electronic Keyer
- 200 Alpha Mems
- DSP2 Included
- 100 W HF Output
- 50 W 2M Output
- 20 W 440 MHz Output
- Spectrum Display

The **Yaesu FT-857D** is the worlds's smallest HF/VHF/UHF multimode amateur transceiver. But don't let the diminutive size fool you. The FT-857D is loaded with features, high power output and an outstanding receiver. It provides coverage of the 160 to 6 meter bands, *including 60 meters* plus the 144 MHz and 430 MHz bands! And look at the receive coverage: 0.1-76, 108-174 and 420-512 MHz. Refinements include: spectrum display, 32 color display, beacon mode, keyer, 200 alphanumeric memories and CTCSS. This enhanced **D** version includes the DSP2 unit installed. Includes MH-31A8J hand mic.

List $1250.00 *Order #1857* **Call for price.**

FT-450D

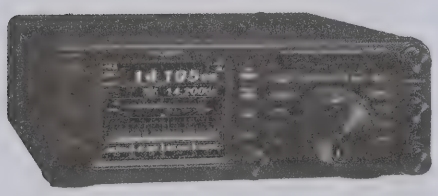


- .03-56MHz Rec.
- Notch, Contour
- IF Shift, IF Width
- Digital NR
- Adjustable RF Power
- 100 Watts Output
- Antenna Tuner
- Voice Synthesizer

The **Yaesu FT-450D** covers HF and 6 meters all in an easy to use, compact package. It employs state of the art IF DSP technology to bring an array of advanced features to the operator. Enjoy 500 regular and 2 voice memories plus a voice synthesizer. A 10 kHz roofing filter is standard. The backlit LCD display is very sharp. These new **D** version features include: key Illumination, foot stand, 500 and 300 Hz CW Filters, and improved knob set. 9 x 3.3 x 8.5 inches 7.9 lbs. The FT-450D comes with MH-31A8J hand mic, mic clip and DC power cord. Requires 13.8 VDC at 22 Amps.

List $1100.00 *Order #0452* **Call for price.**

FT-991A



- Spectrum Scope
- Waterfall
- IF Shift & Notch
- C4FM
- High Speed IF DSP
- HF+6M Autotuner
- TFT Color Touch-Display
- Two Roofing Filters

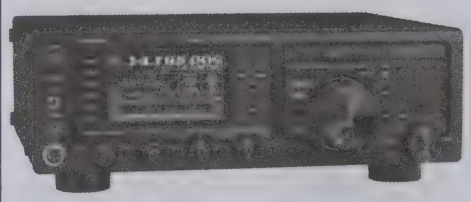
The **Yaesu FT-991A** is a multimode high-power base/mobile "do it all" transceiver covering HF 160 to 10 meters *plus* the 50, 144, 430 MHz bands! Receive is 0.1-56, 76-108, 118-164 and 420-470 MHz. Power is 5-100 Watts HF/6m and 5-50 Watts 2m/70cm. The autotuner covers 160-6 meters with 100 memories for quick tune times. Sharp 3.5" TFT Touch Panel display supporting spectrum display and waterfall functions. *System Fusion* C4FM digital mode is included. 3 kHz and 15 kHz roofing filters are standard. Built-in ±0.5 PPM DDS/PLL local oscillator provides high stability for demanding digital modes like JT65. The FT-991A retains all the features of the FT-991, but adds:

- ✔ Dynamic *real-time* spectrum scope
- ✔ Multi-color waterfall display

Supplied with the MH-31A8J hand mic, DC cord, 25 Amp spare fuse and manual.
It also features a three year limited manufacturer's warranty.
Requires 13.8 VDC 22 Amps. 8.8 x 3 x 9.9" 9.7 lbs.

List $1990.00 *Order #4991* **Call for price.**

FTDX1200



- Dual VFOs
- 2 Antenna Jacks
- DSP RX/TX
- Spectrum Scope
- Shift, Notch, Passband
- Digital Noise Reduction
- IF Width
- Auto Antenna Tuner

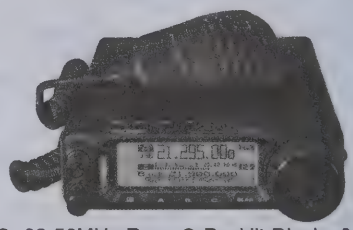
The Yaesu **FTDX1200** covers 160 to 6 meters with 5 to 100 Watts on SSB, CW, and FM (25W AM). It uses 32-bit high speed floating point DSP. A full color 4.3-in TFT wide high resolution display shows loads of information providing superior operability and visibility for the FTDX1200 owner. A high speed spectrum scope is located below the LCD. Roofing filters (3/6/15 kHz) are featured. The popular optional *#6072* **FFT-1 Unit** adds AF-FFT scope function, RTTY/PSK31 Encode/decode, CW decode. With MH-31B8 hand mic, DC cord, spare fuses. Requires 13.8 VDC at 23 Amps. 14.4 x 4.5 x 12.3". 21 lbs.

List $1700.00 *Order #1200* **Call for price.**

FC-50

The **Yaesu FC-50** antenna tuner was designed expressly for the FT-891 (not included).
Order #5050 **Call**

FT-891



- .03-56MHz Rec.
- 100 Watts
- IF 32 Bit DSP
- Auto Notch
- Backlit Display& Keys
- 99 Alpha Memories
- Optional Ant. Tuner
- Detachable Head

The **Yaesu FT-891** is a compact amateur HF transceiver covering the 160 to 6 meter bands with 100 watts. It features a triple conversion general coverage receiver tuning 30 kHz to 56 MHz. Modes include AM, USB, LSB and CW. DSP technology supports QRM and noise reduction, auto notch and APF audio peak filter. Other features include: attenuator, 4-60 WPM keyer, TCXO, CAT port, USB port, auto power off, full break-in, backlit LCD and backlit keys. The FT-891 comes with: MH-31A8J hand mic, mic clip and DC power cord. It requires 13.8 VDC at 23 Amps. 6.1 x 2 x 8.6".

List $1100.00 *Order #0891* **Call for price.**

FT-891 OPTIONS

#	Item	Description	Price
4547	**ATAS120**	Active mobile antenna	**$369.95**
0379	**CT-39**	Packet cable	**9.95**
0643	**FC-40**	Ext. Auto-tuner	**299.95**
5050	**FC-50**	Ext. Auto-tuner	**Call**
2622	**FH-2**	Wired remote keypad	**99.95**
2891	**YSK-891**	Head separation kit	**69.95**

YAESU

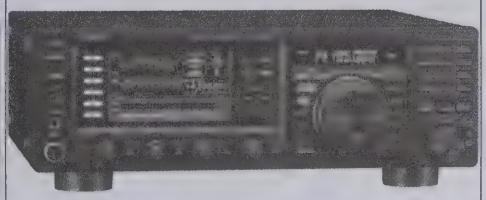
FTDX5000MP

The **Yaesu FTDX5000** series of HF/50 MHz 200 watt transceivers are a new premium class of Yaesu radios with two fully independent receivers plus many unique options and accessories designed to meet the performance requirements of even the most demanding operator. Yaesu engineers have achieved 112 dB dynamic range and an IP3 [3rd Order IP] of +40 dBm (CW, 500 Hz BW). Sharp roofing filters for VFOA/Main receiver are selectable between 300 Hz (optional on some versions), 600 Hz, 3 kHz, 6 kHz and 15 kHz. Yaesu incorporates two of their famous custom designed 32 bit floating point DSP chips based on the TI TMS320C6727B running at 300 MHz ... one for VFO A and one for VFO B. Enjoy state of the art on the transmit side with a pair of reliable VRF150 FETs in a push-pull configuration yielding 200 watts (75 watts class A). Three electroluminescent subdisplays indicate sub frequency, graphical wave and menu functions. The rear panel has 9 MHz IF out from VFO Main receiver. The **FTDX5000MP** version *includes* the SM5000 Station Monitor (as shown above) and has ±0.05 ppm TCXO and 3 kHz roofing filter.

Order #0000 Discontinued

The **FTDX5000LTD** includes ±0.05 ppm TCXO and 3 kHz roofing filter, but does *not* the SM5000.
List $5300.00 *Order #6279* **Call for price.**

FTDX3000



- 160-6 Meters
- 100 Watt
- Electronic Keyer
- Spectrum Display
- 9 MHz IF Output
- First IF Roofing Filters
- USB Interface
- RTTY/PSK en/decoder

The Yaesu **FTDX3000** transceiver provides ultimate weak signal receiver performance in crowded, strong signal environments. General coverage receive is available from 30 kHz to 56 MHz. Power is adjustable 5 to 100 watts for the amateur bands from 160 to 6 meters. A built-in 4.3-in TFT wide full color high resolution display provides superior operability and visibility for the FTDX3000 user. A High Speed Spectrum scope located just below the LCD display provides the information needed to place the operator at the right place on the band with the right receiver setup to have a satisfying experience with a casual QSO chat or while digging out a rare weak signal contact. Other refinements include: USB interface, 9 MHz IF output, RX-only antenna input, RTTY/PSK encoder/decoder, high speed antenna tuner and a specialized 50 MHz amplifier. Requires 13.8 VDC at 23 amps. Includes MH-31B8 hand mic, DC cable, spare fuses and plugs. 14.4 x 4.5 x 12.4 inches 22 lbs.
List $2600.00 *Order #3000* **Call for price.**

ICOM

SM-50

The **Icom SM-50** is a unidirectional, dynamic microphone designed for base station operation with select Icom transceivers. It features up-down tuning, a lock feature and a Low Cut switch to remove the low frequency components on voice signals. 55 ohm.
List $400.00 *Order #3839* **$299.95**

ICOM

SM-30

The **Icom SM-30** is a compact, lightweight unidirectional electret condenser desk microphone. It features a selectable low cut function, lock PTT switch and gooseneck mount. It has an 8 pin connector. Output impedance is 600 ohm. The required 8VDC is derived from the Icom radio.
List $195.00 *Order #5644* **$139.95**

The **Icom OPC-589** 8 pin to modular mic adapter for use with IC-706/7000 etc.
List $45.00 *Order #1120* **$34.95**

ALINCO

DX-SR8T

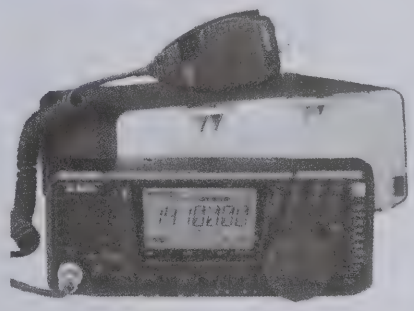
The **Alinco DX-SR8T** covers 160 to 10 meters in SSB, CW, AM and FM. The transmitter delivers a powerful 100 watts in SSB, CW and FM (40 watts on AM). And three power levels may be selected: 100 watts, 10 watts and a variable QRP setting of 0.1~2 Watts. The receiver tunes from 30 kHz to 35 MHz. Other features include: 600 memories, band and memory scanning, attenuator, preamp, RIT, XIT, IF shift and NB. With EMS-64 hand mic, mic hanger and DC cord. Requires 12 VDC at 20 amps. 9.45 x 3.95 x 11.54 inches.
List $529.00 *Order #5008* **Please Call**

DX-SR8T OPTIONS

#	Item	Description	Price
5186	**EDS-17**	Front Panel Extension	$54.95
3489	**EMS-14**	Desk Microphone	109.95
0932	**EDX-2**	External Auto Tuner	339.95

ALINCO

DX-SR9T



The **Alinco DX-SR9T** covers 160 to 10 meters in SSB, CW, AM and FM. The transmitter delivers 100 watts in SSB, CW and FM (40 W AM). It is similar in architecture to the DX-SR8T but adds some *software defined radio* capabilities.
List $699.95 *Order #0190* **Please Call**

DX-SR9T OPTIONS

#	Item	Description	Price
5186	**EDS-17**	Front Panel Extension	$54.95
3489	**EMS-14**	Desk Microphone	109.95
0932	**EDX-2**	External Auto Tuner	339.95
1695	**ERW-7**	USB Radio to PC cable	45.95

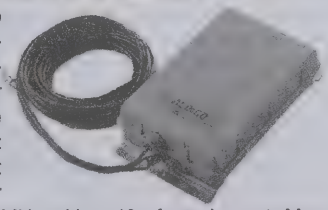
YAESU

FP-1023

The **Yaesu FP-1023** switching power supply provides 13.8 VDC at 23 Amps. It has illuminated power switch, temperature controlled cooling fan, removable AC cord and five-way binding posts on the rear panel. 7 x 2.2 x 8.25 inches 3.5 lbs.
List $216.88 *Order #3631* **$169.95**

ALINCO

EDX-2



The **Alinco EDX-2** automatic antenna tuner can operate 3.5-30 MHz with a 10 foot antenna, or from 1.8-30 MHz with a 40+ foot element. Max. input power is 200 watts. Requires 13.8 VDC. 9 x 4 x 16 inches 8 lbs.
List $385.00 *Order #0932* **$339.95**

YAESU

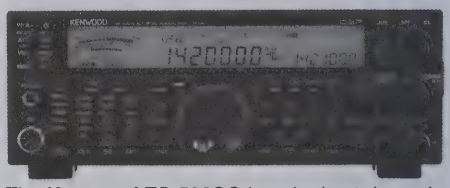
Accessories

Order #	Model	Item Description	List Price	Your Price	FTDX1200	FT-817/818	FT-450D	FTDX3000	FT-857/D	FT-991/A	FTDX5000
4632	ADMS-4AU	Windows CD and USB cable	$48.77	$39.95		■					
4633	ADMS-4BU	Windows CD and USB cable	48.77	39.95					■		
4044	ATAS- 25	Portable manual Antenna	320.00	229.95		■	■		■	■	
4547	ATAS-120	Mobile Antenna	520.00	369.95			■		■	■	
3804	ATBK-100	VHF/UHF Base for ATAS-120	130.00	99.95			■		■	■	
2298	CSC-83	Soft carry case	32.00	24.95		■					
0379	CT-39A	Packet Cable	11.55	9.95		■	■		■	■	
3821	CT-58	VL1000 Band Data Cable	40.00	29.95					■	■	
3822	CT-62	Packet Cable	40.00	29.95		■			■		
2301	CT-178	Cable to VL1000	100.00	79.95				■			
3112	DVS-6	Digital Voice Recorder	80.00	59.95	■			■			
3153	FBA-28	Cell Holder (8xAA)	17.00	14.95		■					
4540	FC-30	External Auto Antenna Tuner	340.00	249.95			■		■		
0643	FC-40	External Auto Antenna Tuner	440.00	299.95	■		■	■	■	■	
6072	FFT-1	FFT Unit	220.00	169.95	■						
2622	FH-2	Wired Remote Keypad	130.00	99.95	■					■	
0874	FNB-85	NiMH 9V 1400 mA FT-817	90.00	64.95		■[5]					
4543	FP-30	Internal PS for FT-897/D	330.00	249.95							
3631	FP-1023A	Power Supply 23A	216.88	169.95	■		■		■	■	
3640	FP-1030A	Power Supply 25A Meters	345.22	269.95	■		■		■	■	
0287	MD-100A8X	Desk Top Microphone	210.00	159.95	■			■		■	
1359	MD-200A8X	Desk Top Microphone	580.00	419.95	■			■		■	■
0406	MH-31A8J	Hand Mic with Up-Down	60.00	44.95		■	■		■	■	
0413	MH-31B8	Hand Microphone	60.00	45.95	■			■			■
0420	MH-36E8J	DTMF Hand Microphone	80.00	59.95		■	■		■	■	
4414	MH-59A8J	DTMF Hand Microphone	90.00	64.95					■		
0568	MHG-1	Carry Handle	15.00	12.95			■				
0855	MMB-90	Mobile Mounting Bracket	50.00	37.95			■			■	
6208	MTU-160	Ext. µ-Tuning Kit 160m	650.00	599.95	■[1]			■[1]			■[1]
6209	MTU-80/40	Ext. µ-Tuning Kit 80/40m	650.00	599.95	■[1]			■[1]			■[1]
6210	MTU-30/20	Ext. µ-Tuning Kit 30/20m	650.00	599.95	■[1]			■[1]			■[1]
4544	PA-26B	A.C. Power Sup. for CD-24	109.08	79.95							
6911	SBR-32MH	NiMH 9V 1900 mA FT-818	110.00	99.95		■[6]					
1145	SCU-17	USB Interface Unit	220.00	169.95	■	■	■		■		
0595	SCU-28	Amp Cable 10pin to bare	40.00	32.95	■		■				
4346	SM5000	Station Monitor	510.00	319.95							■[4]
1789	SP-8	Speaker with Audio Filter	250.00	189.95							
2604	SP-2000	Speaker with Audio Filter	280.00	199.95				■			■
2187	TCXO-9	High Stab. Osc. <±.5 ppm	150.00	109.95		■[7]			■		
2257	XF-126CN	300 Hz Roofing Filter	270.00	199.95							■[3]
1255	YF-122C	500 Hz CW Collins Filter	260.00	189.95		■			■		
4188	YF-122CN	300 Hz CW Collins Filter	260.00	189.95		■			■		
0803	YF-122S	2.3 kHz SSB Collins Filter	260.00	189.95		■			■		
5924	XF-127CN	300 Hz CW Collins Filter	270.00	199.95				■			
2342	YH-77STA	Stereo Headphones (pg. 25)	125.00	89.95	■		■			■	
3847	YSK-857	Head separation kit (19.6 ft.)	80.00	59.95					■		

[1]Includes enclosure [2]For sub-receiver [3]In MP [4]In D and MP [5]For FT-817 [6]For FT-818 [7]In FT-818

KENWOOD

TS-590SG



The **Kenwood TS-590SG** has the best dynamic range in its class when handling unwanted adjacent off-frequency signals thanks to a down-conversion receiver, narrow first roofing filter and dedicated first mixer. This enhanced version includes 500 Hz and 2.7 kHz roofing filters to better deal with adjacent signals. The result is excellent receive performance, revealing signals that would be hidden to lesser rigs. Kenwood was the first in the amateur radio market to deploy DSP based AGC at the IF stage with the TS-870S and adopts technology from the flagship TS-990. With this new transceiver, a 32-bit DSP is deployed from the IF stage forward, the TS-590S marks a bold new chapter in Kenwood's proud history of making compact, high-performance transceivers. The DSP based AGC has been improved for the target signal in the IF passband. The result is greatly improved in-band IMD characteristics that are on par with those "top of the line" transceivers costing much more (for 160/80/40/20/15 CW/SSB/FSK). Covering 160 to 6 meters with 100 watts, this radio features: automatic tuner, RIT/XIT, keypad entry, full & semi break-in, NR, 10 Hz dual VFO display, USB port, dual quiet low RPM fans and is *SkyCommand II* ready. New features include Morse decode and display, split function, variable color display and enhanced autotuner. 11 x 4.2 x 13.2" 16.3 lbs.
List $1759.00 *Order #1590* **Please Call**

TS-990S

The **Kenwood TS-990S** transceiver has a dual TFT display and dual receivers covering the HF amateur bands plus 6 meters. It also features narrowband roofing filters on the main receiver in a full down-conversion configuration. The TS-990S achieves the highest basic reception performance of any radio in the TS series, through the careful selection of circuits, components and accelerating analysis using triple DSP configuration. There is a dedicated DSP for the main receiver, sub-receiver and band scope. Advanced AGC control combines analog and digital technology. You get both transmit and receive DSP equalizers. RF power is adjustable from 2 to 200 watts. This radio features a built-in automatic antenna tuner and built-in AC power supply. It has a serial port, USB ports and Ethernet port. More specifications and photos at: www.universal-radio.com
List $7999.95 *Order #3990* **Please Call**

YAESU

M1

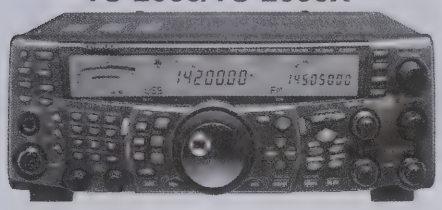
The innovative **Yaesu M1** reference microphone features both condenser and dynamic elements. Each element may independently adjusted by the internal nine band graphic equalizer and volume control. Has 20 second diagnostic record/playback. Includes LCD display, red TX LED, headphone jack, low-cut filter, XLR output and removable treble boost cowling. 30-17000 Hz.
List $890.00 *Order #6735* **Please Call**

M100

The innovative **Yaesu M100** features a hybrid design integrating a high-quality Condenser *and* Dynamic element. The Condenser Element produces greater overall frequency response - with clear and crisp audio, while the Dynamic Element delivers enhanced low and mid-range frequency response. A set of one-touch buttons on the microphone base enable the two microphone elements to be used independently *or* in combinations to create the most favorable sound quality. 30-17000 Hz, 600 Ohms. With 8 pin jack and a modular jack.
List $470.00 *Order #4061* **Please Call**

KENWOOD

TS-2000/TS-2000X



- High Stability
- HF-6M Tuner
- Dual Receive
- Backlit Panel
- IF DSP Main Band
- AF DSP Sub Band
- CTCSS/DCS
- Built-in Packet TNC

The **Kenwood TS-2000** is an all band HF/VHF/UHF transceiver with exceptional features and versatility. Wide band Main HF reception includes: 30 kHz - 60 MHz. On VHF you get: 142-152, 420-450 and 1240-1300 MHz (optional). Sub band (AM/FM modes only) reception includes: 118-174, 220-512 MHz. Output is 100 watts on HF, 6 meters and 2 meters, 50 watts for 440 MHz and optionally 10 watts for 1200 MHz (if UT-20 installed). Includes advanced features such as: IF DSP on main band, AF DSP on sub band, built-in tuner (1.9-54 MHz), built-in keyer with 3 memories, high stability TCXO, 300 memories (290 are alpha.) and built-in TNC. Requires 12 VDC at 20.5 Amps. 10.675 x 3.75 x 12.5" 17.2 lbs.
List $2186.00 *Order #1978* **Please Call**

The **Kenwood TS-2000X** is a special version with the UT-20 1.2 GHz option factory installed. This version is ideal for amateur satellite operations. 10.675 x 3.75 x 12.5 inches 18.1 lbs.
List $2835.00 *Order #2797* **Please Call**

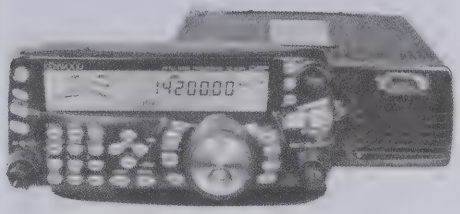
ICOM

IC-7200

The **Icom IC-7200** is a robustly built amateur transceiver providing coverage of HF amateur bands plus 6 meters. Power is 2-100 watts (AM 40W). Features include receive from 30 kHz to 60 MHz. DSP filtering with 51 bandwidths, digital twin passband tuning, manual notch filter, 6 kHz roofing filter, keypad entry, dual VFOs, voice synthesizer, 20 dB attenuator, 201 memories, preamp, RIT, scanning, 1 Hz tuning and more! The excellent general coverage receiver tunes from 30 kHz to 60 MHz. The meter displays Power/SWR/ALC. Power is 2 to 100 watts (40 watts AM). Although the IC-7200 is not waterproof, extra design steps have been applied to the front panel buttons and knobs. This provides a measure of protection against water intrusion. There is even a USB port on the rear panel! Comes with: HM-36 hand mic, DC cord and spare fuses. 9.5 x 3.75 x 11.2 inches 12.1 lbs. Requires 12 VDC at 22 Amps.
List $1146.00 *Order #0026* **Please Call**

KENWOOD

TS-480SAT
TS-480HX



- 160-6 Meters
- Multiple Scan
- Memory Keyer
- Remote Head
- AF DSP
- 10 Hz Tuning
- Digital Noise Limiter
- 100 Alpha Memories
- Wide-Narrow Dev
- Dual VFO Display
- 1750 Hz Tone
- Optional Voice Synthz.

The **Kenwood TS-480SAT** is an all mode HF plus 6 meter amateur transceiver. It features AF digital signal processing on both receive and transmit. A quad-mixer provides receiver dynamic range equivalent to that of the TS-950 class. Receive coverage is 500 kHz (30 kHz VFO) to 60 MHz and direct frequency keypad entry is supported. The stand-alone LCD control panel features its own speaker and can be placed up to 16 feet away from the main unit. The supplied tabletop panel bracket is convenient for base use. 100 Alphanumeric memories are available and multiple scan functions are supported including: program scan, VFO scan, memory scan, group scan, subtone scan and CTCSS scan. The TS-480SAT can transmit 100 watts (5 watt minimum RF output for QRP work). Many operational parameters can be set to your operating preferences via the menu system. Requires 12 VDC at 20.5 Amps.
Note: The **TS-480HX** is similar, but provides 200 watts (100 on 6 meters) and does *not* have the built-in antenna tuner. Requires 12 VDC at 20.5 + 20.5 Amps.

Kenwood TS-480SAT 160-6 Meters 100W + AT
List $1948.00 *Order #0480* **Please Call**

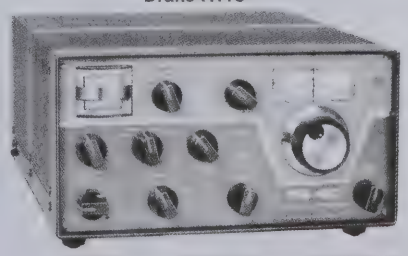
Kenwood TS-480HX 160-6 Meters 200W [no AT]
List $2132.00 *Order #2480* **Please Call**

KENWOOD Optional Accessories

Order #	Model	Item Description	List Price	Your Price	TS-990S	TS-590S/SG	TS-2000/X/B	TS-480SAT/HX
3296	ARCP2000	Radio Control Program	$109.00	$79.95			■	
2195	DRU-3A	Digital Recorder	184.00	129.95			■	
0357	HS-5	Deluxe Headphones	87.00	74.95		■	■	■
6344	KES-3S	Mobile Speaker	44.25	34.95		■	■	■
4273	KPS-15	Switching Supply 13V at 23 A	173.00	119.95			■	
0248	MB-430M2	Mobile Mounting Bracket	55.00	47.95		■	■	
1380	MB-480	Portable Mounting Bracket & Handle	61.00	44.95				■
0230	MC-43S	Hand Mic with Up/Down 8 Pin	67.00	56.95		■	■	■[1]
1023	MC-47	Hand Mic programmable	79.00	61.95		■		
0368	MC-60A	Deluxe Desktop Mic With Preamp	210.00	149.95		■	■	■[1]
1870	MC-90	DSP Compatible Desktop Mic	350.00	249.95	■	■	■	
1539	MJ-88	Modular to 8 pin mic adapter	42.00	29.95				■
2963	PG-2O	DC Power Cable 22 foot	46.00	44.95		■	■	
4143	PG-2Y	DC Power Cable 13 foot	44.00	39.95			■	
0391	PG-2Z	DC Power Cable 6 foot	42.00	36.95			■	
2965	PG-4Z	Panel Extension Cable 13 foot	75.00	54.95				■
3385	PS-60	HD Power Supply 13V at 22.5 A	469.00	429.95		■		
3015	SO-3	High Stability TCXO	156.00	119.95		■		■
0692	SP-23	External Speaker	119.00	89.95		■	■	■
6039	SP-990	External Speaker	299.95	289.95	■			
2949	VGS-1	Voice Guide Synthesizer/Memory	88.00	64.95		■		■
2702	VS-3	Voice Synthesizer	44.00	39.95			■	
3002	YF-107C	500 Hz CW Filter	175.00	129.95				■
2981	YF-107CN	270 Hz CW Filter	175.00	129.95				■
2972	YF-107SN	1800 Hz SSB Filter	175.00	129.95				■

[1] Requires MJ-88

Drake TR4C



CLASSIC RADIOS

Are you looking for a vintage transceiver? The **Used Department** at Universal contains an ever changing assortment of used radio equipment. Please visit our website to view our current offerings with photos for many key items. Our ***Radio Archive*** section includes an informative presentation of recently sold radios with values, specifications and photos. It's like a radio museum! Equipment changes daily and is subject to prior sale.

Amateur Mobile Transceivers

KENWOOD

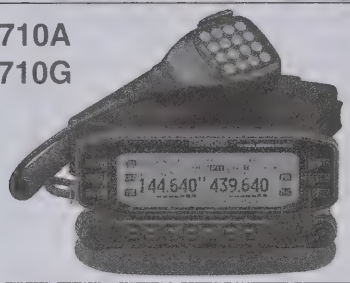
TM-V71A

The Kenwood **TM-V71A** provides sophisticated, high-powered performance on 2 meters and 440 MHz with 5/10/50 watts on both bands. The controls are logical and feature separate volume/squelch for bands A and B. 1000 Memories can be alpha tagged up to six characters. Other features include: scanning, weather alert, password and crossband operation. This dual bander has ten dedicated EchoLink® memory channels as well as EchoLink sysop-mode operation.

- 1000 Memories
- Multi-Scan
- DTMF Hand Mic
- Auto Power Off
- Adv. Intercept Pt.
- Dimmer
- Wideband Rx.
- Memory Names
- Priority Scan
- Amber/Green LCD
- Time-Out Timer
- PL Decode/Encode
- Packet 1200/9600 Din
- Hi/Med/Lo RF Out

Kenwood TM-V71A 144/440 MHz 50/10/5W
List $430.00 *Order #0071* **Please Call**

TM-D710A
TM-D710G



The Kenwood **TM-D710A** dual bander allows you to harness APRS®, GPS and SSTV technologies to provide world class communications. It has a built-in TNC for a wide range of data communications options including packet. But above all, the TM-D710A is fully equipped to make the most of APRS® (Automatic Packet/Position Reporting System). With backlit MC-59 DTMF hand mic.

The **TM-D710G** version has a built-in GPS.

- 1000 Memories
- DTMF Hand Mic
- Weather Alert
- Remote Head
- APRS Ready
- Packet 1200/9600 Din
- Wideband Receiver
- Dual Rx VxU VxV UxU
- PL Decode/Encode
- 50/10/5W Out 144/440

Kenwood TM-D710A 144/440 MHz 50/50W
Order #0000 Discontinued

Kenwood TM-D710G 144/440 MHz 50/50W
List $699.00 *Order #0309* **Please Call**

TM-281A

The **TM-281A** provides a big 65 watts output and is built MIL-STD 810 C/D/E/F tough. This radio has NOAA weather built in with alert tone. You get 200 memory channels (or 100 alphanumeric), CTCSS, DCS and 1750 Hz tone burst. It scans: VFO, program, memory, group, call scan, tone scan, CTCSS and DCS. It has Wide/Narrow deviation and automatic repeater offset. With illuminated DTMF mic. 6 5/16 x 1 11/16 x 5 13/32 inches. 2.6 lbs.

- Weather Alert
- Front Speaker
- DTMF Hand Mic
- Built-in TCXO
- FM Nar. Ready
- DTMF Hand Mic
- 200 Reg Memories or
- 100 Alpha Memories
- PL Decode/Encode
- DCS Decode/Encode
- MIL-STD 810 C/D/E/F
- Wide/Narrow Deviation

Kenwood TM-281A 144 MHz 65W
List $199.00 *Order #0281* **Please Call**

KENWOOD Optional Accessories

Order #	Model	Item Description	List Price	Your Price	TM-281A	TM-D700A	TM-D710A	TM-V71A	TM-V708A
6344	KES-3S	Mobile Speaker	$44.25	$32.95	■	■	■	■	■
4273	KPS-15	Switching Power Supply 23 Amps	173.00	119.95	■	■	■	■	■
2127	MC-59	Lit Hand Mic With DTMF. Modular	66.75	49.95			■	■	
0368	MC-60A	Deluxe Desk Mic. 8 Pin With Preamp[1]	210.00	149.95	■	■	■	■	■
1539	MJ-88	Modular to 8-pin Mic Plug Adapter	35.00	29.95	■	■	■	■	■
2882	PG-2N	DC Power Cable	25.00	18.95	■	■	■	■	■
0303	PG-3B	DC Line Noise Filter	40.00	29.95	■	■	■	■	■
0769	PG-5A	TNC Data Cable	18.00	14.95		■		■	■
0000	KPG-46X	USB PC Interface Cable		Call	■				
0678	PG-5F	Extension Cable	93.00	69.95			■	■	
1042	PG-5G	Serial Cable Only	49.00	35.95			■	■	
2670	PG-5H	Data & Serial Cables	64.00	57.95			■	■	
2949	VGS-1	Voice Synthesizer/Recorder/Player	88.00	64.95			■	■	
2702	VS-3	Voice Synthesizer	44.00	39.95		■			■

[1]The MC-60A requires the MJ-88 adapter on modular mic jack models.

Skycommand System II+

The TS-2000/2000X/B2000 is equipped for Kenwood's Skycommand System II+. With the TH-D7AG/D72A, TM-D700/710A, you can enjoy HF access remotely. Conventionally two extra transceivers are required for KSS operation — a Commander and a Transporter — but the TS-2000/2000X/B2000 has Transporter functions built in. This means you can operate it remotely with a *single* mobile or handheld unit, such as the TH-D7A/G/D72A or TM-D700A/D710A, transmitting control signals to the Transporter, which also relays your voice to the HF radio. In return, HF signals are transmitted back to the Commander. This system allows you to *remotely* transmit and receive HF signals, set frequencies (with LCD confirmation), switch channels, and more. Enjoy full-duplex operation with access to HF functions such as RIT/XIT, mode switching, split-frequency operations on/off, and memory shift. Control is effected via simple TNC, compatible with the AX.25 protocol.

VIEW ACCESSORIES

We do not have room in our catalog to illustrate accessory items but they may be viewed on our website at:
www.universal-radio.com

NEED A PRICE?

The price of amateur radio gear is constantly changing as a result of coupons and promotions. For current pricing please visit our website at: **www.universal-radio.com**
or call toll-free: **1 800 431-3939**

USED AMATEUR RADIOS

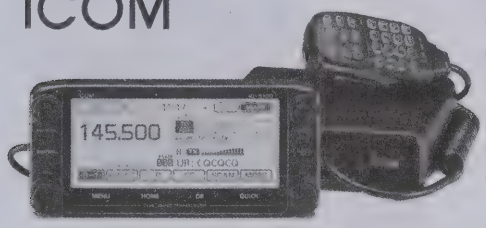
Universal Radio carries previously owned amateur and shortwave radios available at a substantial discount over new. Our used department is also a good source for classic collector models. Our website used list contains the models currently available with photographs of most entries. There is also an informative photo-archive of recently sold used radios. Universal Radio takes most amateur radios in on trade. Additionally we also purchase used radios. Contact Universal if you have a radio you wish to sell or trade.

email: dx@universal-radio.com website: www.universal-radio.com

Kenwood
TM-642A

Are you a collector looking for an older radio model?
Please visit our used equipment department at:
www.universal-radio.com

ICOM ID-5100ADLX



The Icom **ID-5100ADLX** 2m/440 has next generation D-Star capability with 50 watts on both bands with VV, UU and DV dual watch. Wideband receive 118-137 [AM], 137-174 and 375-550 MHz. 1000 regular, 4 call channels, 50 scan edges and 1200 repeater memories, SD card slot for voice/data storage, D-PRS enhancements, TNC/9600bps modem connectivity, GPS and HM-207 control mic. Now includes MBA-2 head bracket. Requires optional MBF-4 for mobile mounting.

- D-Star
- SD Card Slot
- 2250 Memories
- Wide Receive
- 3 RF Levels
- DTMF Mic.
- Band Scope
- Crossband Repeat
- V/V, U/U Receive
- Separate Head
- GPS
- 9600 Packet Port
- PC Programmable
- Encode/Decode

Icom ID-5100ADLX 144 & 440 MHz 50/50 watts
List $650.00 *Order #0510* **Please Call**

IC-2730A

The Icom **IC-2730A** 2m/440 dual band mobile offers a large white background LCD screen. Independent VHF and UHF bands support, crossband repeat, 50/50 watt output. Enjoy 1000 regular, 2 call channels and 50 program scan edges memories. Wideband receive 118-137 [AM mode], 137-174 and 375-550 MHz. With: HM-207 hand mic, OPC-837 controller cable and CS-2730 software (as download). Requires optional MBA-5 and MBF-4 for mobile mounting.

- Large Display
- White Back LCD
- 1052 Memories
- Wide Receive
- 3 RF Levels
- DTMF Mic.
- V/V U/U Rx
- Crossband Repeat
- VHF Airband Receive
- Separate Head
- Independent Controls
- Optional BlueTooth
- PC Programmable
- Encode/Decode

Icom IC-2730A 144 & 440 MHz 50/50 watts
List $405.00 *Order #2730* **Please Call**

IC-2300H

The **IC-2300H** 2 meter FM mobile has a large 4-level backlit LCD that may be set to green, yellow or amber. The receiver covers 136-174 MHz and the transmitter delivers 65, 25, 10 or 5 watts. Improved receive IMD helps provide protection from strong signals such as pager signals. With: 207 alpha memories, 3-way priority watch and independently programmable Rx/Tx and tone squelch. There is an FM narrow mode. With HM-133V remote mic. 5.51 x 1.6 x 6.4 inches.

- 207 Memories
- Scanning
- Call Channel
- DTMF Mic.
- Tone Scan
- MIL-STD 810 G
- Large LCD Display
- 136-174 MHz Receive
- 65/25/10/5 W Output
- FM Narrow Mode
- Encode/Decode
- Amber, Yel, Grn LCD

Icom IC-2300H 144-148 MHz 65 watts
List $236.00 *Order #5023* **Please Call**

ID-4100A

Enter the next generation of Digital Radio with the **Icom ID-4100A** 2m/440 dual band mobile. The full Dot-Matrix Display has easy-to-read characters and icons. Has a built-in GPS. Enjoy 1000 regular, 1500 repeater, 300 GPS memories and 4 call channels. The DR (D-STAR® Repeater) function is supported with the latest Icom user-interface. The exciting Terminal & Access Point Mode extends D-STAR coverage with the Internet (optional data cable and free-download application required. Hands-free Bluetooth® operation is possible with optional Bluetooth® unit and headset. Optional enhanced remote control apps available (require Bluetooth® options). The ID-4100A has a compact, detachable head-controller for flexible installation. With HM-207S mic. 5.9 x 1.6 x 6.8". Various mounts are optional.
List $514.00 *Order #4100* **Please Call**

ICOM OPTIONS

Order #	Model	Item Description	List Price	Your Price	IC-2730A	ID-5100A	IC-ID1	IC-V8000	IC-2300H	ID-4100A
5816	CS2300H	Win cloning software CD	85.00	59.98					■	
1160	MB-28H	Mobile Radio Bracket	29.00	27.95					■	
2526	MBA-2	Head Mounting Bracket	40.00	34.95		■				
2704	MBA-4	Head To Radio Bracket	60.00	49.95	■	■				
6436	MBA-5	Head Bracket	40.00	31.95	■	■				
6870	MBA-8	Head Bracket for MBF-1	40.00	31.95						■
2650	MBF-1	Suction Cup Mounting Base	85.00	69.95		■				
6307	MBF-4	Mobile Radio Bracket	35.00	28.95		■				■
3290	HM-154T	DTMF Cond Hand Mic	90.00	66.95			■	■	■	
3236	OPC-347	DC Cord 23 Ft.	70.00	54.95			■	■	■	
0223	OPC-440	Mic Ext. Cable 16 Ft.	100.00	74.95	■	■	■	■	■	■
0918	OPC-474	Radio to radio clone cable	20.00	16.95				■	■	
1180	OPC-478	RS-232 to radio cable	60.00	44.95				■	■	
4886	OPC-478UC	USB to radio cable	70.00	49.95	■	■		■	■	■
1120	OPC-589	8 Pin to modular mic adptr.	45.00	34.95	■			■	■	■
2990	OPC-1132	DC Cord 9 Ft.	45.00	34.95			■	■	■	
4485	OPC-1156	Front panel cable 11 Ft.	20.00	17.95	■	■				■
2489	OPC-1384	Data Cable ID-800H	42.00	29.98						
4735	OPC-1529R	Serial data cable to PC.	41.00	31.95						■
5874	SP-35	Mobile Speaker	77.00	59.95	■		■	■	■	■
6859	UT-137	BlueTooth Unit for VS-3	99.00	74.95						■
6230	UT-133	BlueTooth Unit for VS-3	124.00	99.95		■				
6231	VS-3	Bluetooth ear piece mic	149.00	119.95		■				■

D-STAR™

D-STAR is an open protocol developed by the Japanese government and by the J. A. R. L. D-STAR radios can talk directly to each other without any intermediate equipment, or through a repeater using D-STAR voice or data transceivers.

The D-STAR system supports two types of digital data streams:

The Digital Voice (DV) stream used on 144 and 440 MHz contains both digitized voice (3600 bps including error correction) and digital data (1200 bps). Using a DV radio is like having both a packet link and FM voice operating simultaneously.

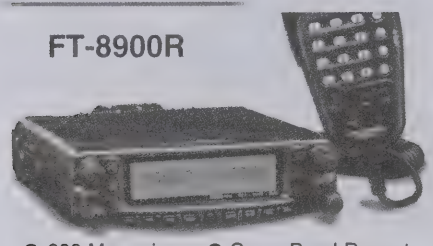
The Digital Data (DD) stream, used only on 1.2 GHz, is entirely data with a bit rate of 128k bps. The data connection to a radio that uses DV is via an RS-232 interface or USB 1.0. An Ethernet connection is used for high-speed DD D-STAR data.

DISCONTINUED ACCESSORIES

Looking for an older accessory? Our website contains an archive of discontinued models — many with still available optional accessories.
www.universal-radio.com

YAESU

FT-8900R



- 800 Memories
- Six Scan Modes
- ARTS™
- V+U/V+V/U+U
- Cross-Band Repeat
- Backlit DTMF Mic.
- CTCSS Encode/Decode
- Packet Ready

The **Yaesu FT-8900R** quad bander gives you incredible power and flexibility on the road. Operate 10 meters, 6 meters, 2 meters and 70cm. High power output is featured with 50 watts on 10, 6 and 2 meters and 35 watts on 430 MHz. It is like having two radios in one with dedicated Volume and Squelch controls on each side. Includes cross-band repeat, duplexer and CTCSS/DCS Encode/Decode. WiRES™ compatible. Includes MH-48A6J DTMF hand mic. 5.5 x 1.6 x 6.6" 2.2 lbs.
List $460.00 *Order #0890* **Please Call**

FT-2980R

- 200 Memories
- Smart Search™
- Packet Ready
- DTMF Memories
- CTCSS Encode
- CTCSS Decode
- 80 Watts Output
- Weather Alert

The **Yaesu FT-2980R** 2 meter mobile is similar to the FT-2900R but boasts a big 80 watts of power. Can also be set for 30, 10 or 5 watts. Receive is 134-174 MHz. CTCSS/DCS encode/decode is built-in. Direct keypad entry is available via the supplied MH-48A6J backlit DTMF remote mic with four programmable keys. Other supplied items include: MMB-83 mobile bracket, DC power cord, spare fuse and base feet. The fanless FT-2980R is built MIL-STD 810 tough. 6.3 x 2 x 7.3".
List $220.00 *Order #0980* **Please Call**

FT-7900R

- 1055 Memories
- ARTS™
- Packet Ready
- DTMF Memories
- PL Encode/Decode
- DCS Encode/Decode
- Backlit DTMF Mic
- Five Hyper Memories

The **Yaesu FT-7900R** provides 50 watts on 2 meters and 45 watts on 430 MHz. The well designed front panel provides simple, safe operation. Features include: over 1000 memories, Packet 1200/9600 jack, extended receive 108 to 520 and 700-990 MHz (less cellular). It is WiRES and ARTS™ compatible. The FT-7900R comes with a MMB-36 mobile mounting bracket, DC cord and illuminated MH-48A6J Up-Down DTMF hand mic. 5.5 x 1.6 x 6.6" 2.2 lbs.
List $380.00 *Order #0790* **Please Call**

FTM-3200DR

- C4FM/FM
- 65/30/5 Watts
- Group Monitor
- TCXO
- Mode LED
- Backlit Display
- 220 Memories
- CTCSS Encode/Decode
- Extended Receive
- Weather Alert

The **Yaesu FTM-3200DR** 2 meter mobile transceiver features Yaesu's legendary mechanical toughness and incorporates new technology such as *System Fusion* with Automatic Mode Select (AMS) to recognize whether a transmission is digital or analog, and automatically sets the mode. (Does not support connectivity to HRI-200 as a WiRES-X Node Station). With: MH-48A6JA DTMF hand mic, mounting bracket, USB cable, DC cord and manual. 6.1 x 1.7 x 6.1" 2.86 lbs.
List $230.00 *Order #3200* **Please Call**

FTM-3100R

- Rugged Design
- 65/30/5 Watts
- Group Monitor
- TCXO
- Mode LED
- Backlit Display
- 220 Memories
- CTCSS Encode/Decode
- Extended Receive
- Weather Alert

The **Yaesu FTM-3100R** 2 meter transceiver is identical to the FTM-3200DR above, but does ***not*** have Yaesu's *System Fusion* C4FM digital mode. With: MH-48A6JA DTMF hand mic, mounting bracket, USB cable, DC cord and manual. 6.1 x 1.7 x 6.1" 2.86 lbs.
List $200.00 *Order #3100* **Please Call**

For current radio pricing please visit our website:
www.universal-radio.com
or call toll-free: **1 800 431-3939**

FTM-100DR

- Dual Display
- APRS
- C4FM/FDMA
- V+U/V+V/U+U
- TOT & APO
- Dot Matrix Display
- 500 Memories/Band
- CTCSS Encode/Decode
- Clock - Calendar
- Dual Watch

The **Yaesu FTM-100DR** 2 meter/440 digital mobile transceiver has four modes: **V/D** voice *and* data, **Voice FR** high quality voice, **Data FR** full data rate (2X speed of V/D), **Analog FM** when weak signal strength causes audio drop-out. The *AMS - Automatic Mode Select* function identifies these four modes and selects them automatically! Power is selectable at 50, 20 or 5 watts on either band. Wideband receive from 108-470 and 800-999 MHz (less cellular). Four scan modes are supported. With: MH-48A6JA DTMF hand mic, mounting bracket, bracket for controller, 9.8 foot control cable, DC cord and owner's manual.
List $420.00 *Order #0100* **Please Call**

FTM-3207DR

The **Yaesu FTM-3207DR** has the same feature set as the FTM-3200DR, but covers 430-450 MHz with 55/25/5 watts.
List $230.00 *Order #3207* **Please Call**

FTM-7250DR

The **Yaesu FTM-7250DR** C4FM/FM 2 meter / 440 MHz mobile transceiver, providing up to 50 Watts to ensure stable long-distance communications. The front firing speaker delivers 3 Watts of and clear audio. Features include: CTCSS/DCS encode/decode with split Tone and DCS encode-only capability, RF Squelch, Transmit Time-Out-Timer (TOT), Automatic Power-Off (APO), Automatic Repeater Shift (ARS), Busy Channel Lock-Out (BCLO), 225 alphanumeric memories with separate transmit frequency memories ("Odd Splits") and a bright multicolored status LED cluster. A great way to join the *Fusion* digital revolution.
List $300.00 *Order #0725* **Please Call**

YAESU

FTM-400XDR

- Altitude Display
- 3.5" TFT Color Display
- Band Scope
- 500 Memories/Band
- C4FM/FDMA
- CTCSS Encode/Decode
- V+U/V+V/U+U
- Clock - Calendar
- APRS
- Image RX/TX
- TOT & APO
- Dual Reception

The **Yaesu FTM-400XDR** 2 meter/440 dual band mobile transceiver provides four modes:

✔ **V/D** Reliable digital voice *and* data communications achieved using strong error correction.

✔ **Voice FR** Full data rate for high quality voice.

✔ **Data FR** Full data rate for transferring large amounts of data, text messages and images.

✔ **Analog FM** mode when weak signal strength causes audio drop-out in the digital mode.

During receive, the *Automatic Mode Select* function identifies and selects the mode automatically! Power is selectable at 50, 20 or 5 watts on either band. Enjoy wideband receive from 108-470 and 800-999 MHz (less cellular). Four scan modes are supported and 500 memories per band store: frequency, mode, tag, repeater info., tone, DCS, memory skip information and transmission output. The screen background may be set to green, blue, orange, purple or gray. The FTM-400XDR can capture, transmit and receive images and video by connecting a USB camera (not supplied). There is a microSD card port. With: MH-48A6JA DTMF hand mic, mounting bracket, controller bracket, 9.8 foot control cable, SCU-20 PC cable, stereo to monaural plug and DC cord.

List $800.00 *Order #1400* **Please Call**

YAESU

OPTIONS

Order #	Model	Item Description	List Price	Your Price	FT-1900R	FT-2980R	FT-7900R	FT-8800R	FT-8900R	FTM-3100/3200	FTM-400XDR
4877	**BU-2**	Bluetooth Unit for radio	110.00	**82.95**							■
5220	**CD-40**	Charge Stand BH-2A[1]	30.00	**19.98**							■
0379	**CT- 39A**	Packet Cable	11.55	**9.95**			■	■	■		
6089	**CT-162**	Separation Cable (19.6 feet)	50.00	**39.95**							■
6108	**CT-163**	MDIN10PIN to MDIN6PIN+DSUB9PIN	60.00	**49.95**							■
1188	**CT-164**	MDIN10PIN to MDIN6PIN	30.00	**24.95**							■
2559	**CT-165**	MDIN10PIN to DSUB9PIN	50.00	**40.95**							■
6102	**CT-166**	Programming Cable	55.00	**38.95**							■
2863	**CT-167**	MDIN10PIN to Bare Wires	30.00	**24.95**							■
3631	**FP-1023**	Switching Power Supply 23A	216.88	**169.95**	■	■	■	■	■	■	■
3640	**FP-1030A**	Linear Power Supply 30A	345.22	**269.95**	■	■	■	■	■	■	■
5385	**FVS-2**	Voice Guide	40.00	**29.95**							■
5918	**HRI-200**	WiRES-X™ Internet Interface	125.00	**119.95**			■	■	■		
0201	**MEK-2**	Adapter for 8 pin mobile mic	60.00	**44.95**			■	■	■		
4903	**MEK-M10**	Mic adapter jack	15.00	**9.98**							
3647	**MH-42C6J**	Hand Mic	60.00	**44.95**	■	■	■	■	■	■	■
5386	**MH-48A6JA**	DTMF Hand Mic	70.00	**54.95**	■	■	■	■	■	■	■
5875	**MH-85A11U**	Hand Mic with Snap Shot Camera	150.00	**119.95**							■
3098	**MLS-100**	Mobile Speaker	62.00	**45.95**	■	■	■	■	■		
4904	**MLS-200M**	Weatherproof Speaker	50.00	**39.95**						■	■
0751	**MMB-36**	Mobile Bracket	10.00	**8.95**			■	■	■		
5772	**MMB-60**	Quick Release Mob Bracket	50.00	**39.95**			■	■	■		
5614	**MMB-98**	Vacuum bracket for Control Head	20.00	**16.95**							■
6747	**SAD-19B**	Wall Charger for CD-40	30.00	**22.95**							■
6272	**SCU-23**	Mic. Ext. Cable (9.8 feet)	60.00	**49.95**							■
6419	**SMB-201**	Cooling Fan Base	70.00	**54.95**			■	■	■	■	■
1650	**YSK-7800**	Separation Kit (19.7 feet)	80.00	**59.95**			■				
2161	**YSK-8900**	Separation Kit (19.7 feet)	80.00	**59.95**				■	■		

[1]Requires PA-46B

YAESU ARTS™

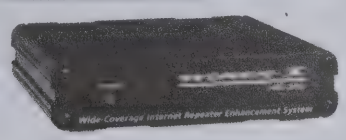
Yaesu's exclusive ARTS™ feature can be critically important in search-and-rescue applications. ARTS provides a "hand-shake" with other ARTS equipped transceivers, and the display indicates if an *Out of Range* condition exists. The base station (typically a mobile like the FT-8900R) can then alert the field unit to move to a better location. A six character CW ID memory is also provided for Morse code identification of your station every ten minutes during ARTS operation.

ADMS SOFTWARE

Programming your new Yaesu mobile is a breeze with ADMS Windows software CD and included USB cable (except *#6498* has microSD).

#	Item	For Radio	Price
3519	**ADMS2H**	FT-8900R	$37.95
2095	**ADMS2I**	FT-8800R	37.95
3704	**ADMS2K**	FT-7900R	33.98
1424	**ADMS1900**	FT-1900R	34.98
1436	**ADMS2900**	FT-2900R	37.95
1452	**ADMS7900**	FT-7900R	37.95
6498	**ADMSM400**	FTM-400DR	33.95

YAESU HRI-200



The **Yaesu HRI-200** Internet Linking System uses the WIRES™ *Wide-Coverage Internet Repeater Enhancement System.* WIRES-X allows communications between both C4FM digital stations and conventional FM stations via WIRES-X. High quality voice communication is achieved by repeating C4FM digital data as it is via the Internet. Supplied accessories include: USB Cable, Data Cable Mini-DIN 10pin-10pin (CT-174), Data Cable Mini-DIN 10pin-6pin (CT-175), WIRES-X setup disk (CD) and operating manual. 4.4" x 1.0" x 5.2" 12 oz. This device is USB bus powered

List $125.00 *Order #5918* **$119.95**

YAESU DR-1X

The **Yaesu DR-1X** is a full featured C4FM/FM dual band repeater/base station. And unlike many other repeaters, the DR-1X handles conventional FM and C4FM digital transmission. The Yaesu *System Fusion* technology features the AMS-Automatic Mode Select function that instantly recognizes whether the signal is C4FM digital or conventional FM and automatically switches to match the received mode. With internal AC power supply, high stability ±2.5 ppm TCXO, DSQ (Digital Squelch Code), CTCSS and DCS Signaling. With SCU-20 PC cable.

Order #0000 Discontinued

YAESU DR-2X

The **Yaesu DR-2X** is a heavy duty version adding dual receive, IMRS (Internet-linked Multi-site Repeater System), improved *News Station* feature, *Group Monitor* function, stable high power output with large heat sink, commercial grade components and heavy power supply.

List $2000.00 *Order #6669* **Please Call**

DR-1X/2X OPTIONS

#	Item	Description	Price
5385	**FVS-2**	Voice Guide Unit	$29.95
3647	**MH42C6J**	Hand Mic	44.95
5386	**MH48C6JA**	DTMF Hand Mic	54.95

ALINCO

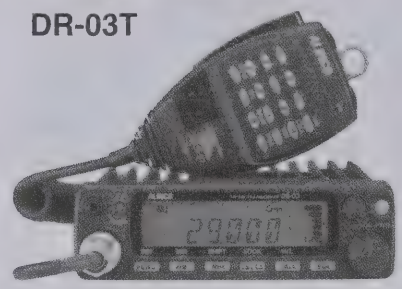
DR-06T

The **Alinco DR-06T** gets you on the six meter *Magic Band* with a full 50 watts. Enjoy the large alphanumeric display, remote control from the multifunctional backlit microphone, excellent transmit/receive audio and clean key layout of the control panel. Features like 100 alphanumeric memories, 39 CTCSS and DCS encode/decode, 3 output level (50/25/5 watts) settings, theft alarm, cable-clone and much more are all standard in the DR-06T. Enter the digital age with the optional EJ-47U digital voice unit. There is also an optional EJ-41U internal Packet TNC board (1200/9600). Frequency range is 50-53.995 MHz (FM). 5.58 x 1.61 x 6.83 inches 2.2 lbs.

List $279.95 *Order #5025* **$239.95**

ALINCO

DR-03T



The **Alinco DR-03T** is a capable, compact 10 meter 10 watt FM transceiver capable of true DX operation when propagation permits. The easy and smooth operation of the DR-03T is inherited from the popular DR135/235/435 series such as a large alphanumeric display, remote control from the multifunctional back-lit microphone, excellent transmit/receive audio and clean key layout of the control panel. Features like 100 alphanumeric memories, 39 CTCSS and DCS encode/decode, 3 output level (10/5/1~4 watts) settings, theft alarm, cable-clone and much more are all standard in the DR-03T. The receive range is 28-29.695 MHz (FM). 5.58 x 1.61 x 6.83 inches.

List $269.95 *Order #2607* **$229.95**

ALINCO

DR-135/235 Series

- 100 Memories
- 10 Autodial Memories
- VFO Scanning
- GPS Input
- Optional TNC
- Encode/Decode
- Air Band Rx.
- DTMF Microphone

The **Alinco DR-135** series features 2 Meter 50/10/5 watt FM output with a 7 character alphanumeric display, 100 memories, aircraft (AM) plus extended receive. CTCSS encode/decode is standard. Includes backlit DTMF mic and DC cord. 5.6 x 1.7 x 6.1". Black.

DR-135TMkIII 144-148 MHz 50 watts
List $179.95 *Order #1980* **$169.95**

DR-235TMkIII 220MHz 25 watts (no EJ-41U)
List $249.00 *Order #4336* **$228.95**

DR-135/235/635 OPTIONS

#	Item	Description	Price
3025	**EDS-9**	Head Exten. DR-635	**$44.95**
2027	**EJ-47U**	Digital Voice Unit	**169.98**
2763	**EJ-50U**	Packet TNC DR-635	**139.98**
3489	**EMS-14**	Electret Desk Mic	**109.95**
1354	**EMS-57**	Electret Hand Mic	**59.95**
0069	**MB-130**	Extra Mobile Bracket	**20.95**
1701	**PC-15B**	Extra DC power cord	**12.95**

ALINCO

DR-735T

The **Alinco DR-735T** dual-bander covers the 2 meter and 440 amateur bands supporting full crossband operation. Power may be selected at 50, 20 or 5 watts. Intuitive operation is assured with separate volume, squelch and tuning knobs for each band. The extra large display supports selectable multi-color RGB backlighting. 1000 memories are available. The head is remoteable. The rear panel has two speaker ports. The advanced 10F3 digital mode with speech compression technology is available via the optional EJ-47U board. Supplied with radio mobile mounting bracket and EMS-79 backlit DTMF microphone.

List $349.95 *Order #0735* **Please Call**

DR-735 OPTIONS

#	Item	Description	Price
6381	**EDS-8**	8 pin to Mod Mic Adptr.	**$25.98**
6668	**EDS-30**	Head Separation Kit 16'	**48.95**
2027	**EJ-47U**	Digital Voice Unit	**169.98**
6558	**EMS-79**	DTMF Up/Dn Hand Mic	**59.95**
1695	**ERW7**	USB Interface Cable	**45.95**
2430	**DM-430T**	Power Supply 5~15 VDC	**139.95**

ALINCO

DR-638T

The **Alinco DR-638T** is a dual-band VHF/UHF commercial transceiver with full duplex and crossband repeat. Transmit is: 136-174 and 400-480 MHz. Receive is: 108-180 MHz (AM/FM), 220-260, 400-532 and 350-400 MHz (FM). Power is VHF 50/25/10/5W & UHF 40/25/10/5W. Features include: CTCSS, DCS, Tone-Burst Tones, DCS/Tone Scan, 758 channels, backlit 6 character variable color alphanumeric display, removable control head and illuminated DTMF mic with direct frequency entry and remote control. With mounting bracket, spare fuse, mic hanger, manual and DC power cord.

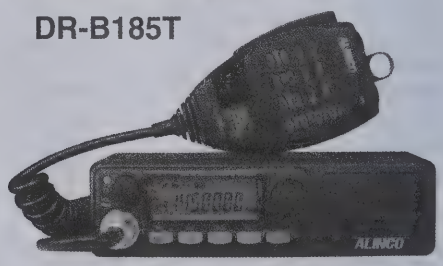
List $399.95 *Order #0638* **Please Call**

DR-638 OPTIONS

#	Item	Description	Price
6359	**EDS-28**	Head Separation Kit 16'	**41.95**
6360	**EMS-77**	DTMF Up/Dn Hand Mic	**44.95**
6358	**ERW12**	USB Interface Cable	**32.95**
2430	**DM-430T**	Power Supply 5~15 VDC	**139.95**

ALINCO

DR-B185T



The **Alinco DR-B185T** features a newly designed power circuit that puts out 85 watts max. It transmits from 144-147.995 MHz and receives from 136-173.995 MHz. It features alphanumeric display (up to seven characters), dial lock, 500 memories, scanning, wide-narrow FM and dimmer. Two power output levels (85/5 watts) are available and CTCSS encode/decode and tone burst are standard. This radio delivers power, flexibility and performance in a small package. The DR-B185T comes with: EMS-57 DTMF Hand Mic, mobile bracket, DC cord and mounting hardware. 6.44 x 1.73 x 7.21 inches 3.31 lbs. Requires 13.8VDC at 20 Amps.

List $189.95 *Order #4185* **$164.95**

KENWOOD

TH-D74A

- Color TFT Display
- D-STAR® operation
- APRS
- 1200/9600 bps TNC
- Integrated GPS
- Bluetooth Compliant
- Battery Saver Circuit
- Voice Guide Function

This **Kenwood TH-D74A** is showing the way to even more capable and versatile amateur digital HTs. This tri-band HT operates on the 144, 220 and 440 MHz bands. Receive ranges: 136-174, 216-260, 410-470 [A] and 0.1-524 [B] MHz. RF power may be set for 5, 2, 0.5 or 0.05 Watts. There is a stunning 240x180 pixel transflective TFT color display. It is equipped with a built-in TNC (1200/9600 bps) and GPS that supports APRS®. This radio features D-Star® with superior audio and even supports simultaneous APRS® / D-Star® operation! It is Bluetooth® compliant and supports microSD and Micro-USB. The extended receive includes AM and shortwave reception including SSB and CW reception. 1000 Alpha memories are available. There is even a 12 kHz IF output for PC decoding. Rugged IP54/55 weather proofing. 13.8 VDC input.

List $651.95 *Order #4074* **Please Call**

TH-K20A

- Auto Repeater Offset
- Built-in CTCSS/DCS
- Weather Alert
- Multi Scanning Modes
- Backlit Keypad
- 200 Memories
- Battery Saver Circuit
- Narrow FM Ready

The **Kenwood TH-K20A** is a rugged 5.5 watt, 2 meter HT with straightforward operation. It has a large backlit LCD, backlit keys and Weather Alert. Receive coverage is 136-174 MHz. You get 200 regular or 50 alpha memories. Enjoy simple repeater operation with auto repeater offset and automatic simplex checker. Scan types include: CTCSS, DCS and 1750 Hz tone burst. Other features include: Auto power off, time out timer, memory channel transfer and wide/narrow deviation. Everyday functions are preprogrammed into 11 keys with an additional PF key that can be assigned with a custom function. Three output levels (5.5/2.5/1 watts) are available for extended battery life. MIL-STD-810 C/D/E/F. KNB-63L Li-ion 1130 mAh, KSC-35S drop-in charger, and English/Spanish/French printed manual.

List $169.95 *Order #3020* **Please Call**

TH-D72A

- Built in TNC 1200/9600
- Built in GPS
- 1000 Alpha Memories
- Encode/Decode
- Wideband Receive
- LCD Dot Matrix Display
- Nine Scan Modes
- Clock/Date Function

The **Kenwood TH-D72A** *Data Communicator* has an integrated GPS receiver *and* built-in TNC (1200/9600) to provide superior APRS® operation. And the TH-D72A can be employed as part of Kenwood's *Skycommand System II+* when used with the TS-2000 series. The TH-D72A also offers EchoLink® memory compatibility and a mini-USB connector. Other features include: 1000 alpha memories, 9 scan modes, CTCSS/DCS, cross-tone, waypoint export, DX cluster tune, clock (date/time), band mask, call channel, monitor, auto power-off, MHz mode, shift, VOX, auto repeater offset, simplex checker and ten DTMF memories. It is MIL-STD810 and IP54 weather-proof. The TH-D72A can be a stand-alone Digipeater and even function as an iGate when properly connected! Includes antenna, battery, charger, USB cable, printed and CD manual.

List $512.00 *Order #3072* **Please Call**

KENWOOD

Optional Accessories

#	Model	Item Description	List Price	Your Price	TH-F6A	TH-K20A	TH-D72A	TH-D74A
4373	**BT-13**	Battery Case 4 x Alkaline AA Cells	$28.00	**$24.95**	■			
5413	**BT-15**	Battery Case 6 x Alkaline AAA Cells	38.00	**28.95**			■	
5596	**BT-16**	Battery Case 6 x Alkaline AAA Cells	24.00	**19.95**		■		
6736	**KBP-9**	Battery Case 4 x Alkaline AAA Cells	34.95	**34.95**				■
5427	**KHS-22**	Single ear, behind-the-head PTT boomset	36.00	**31.95**	■	■	■	
3054	**KHS-26**	Earbud Clip Microphone	28.00	**22.95**	■	■	■	■
3247	**KMC-45D**	Speaker Microphone	86.00	**69.95**				■
0000	**KNB-63L**	Li-Ion Battery 7.4 VDC 1130 mAh	Discontinued		■			
5660	**KNB-65L**	Li-Ion Battery 7.4 VDC 1520 mAh	45.00	**44.95**		■		
6722	**KNB-74LW**	Li-Ion Battery 7.4 VDC 1100 mAh	75.00	**74.95**				■
1799	**KNB-75LW**	Li-Ion Battery 7.4 VDC 1800 mAh	85.00	**84.95**				■
6742	**KPG-46X**	USB Programming Cable		**89.98**				■
1879	**KSC-25LSK**	Rapid Drop-in Desk Charger	48.30	**39.95**				■
5343	**KSC-32**	Rapid Desk Charger	70.00	**52.95**			■	
0000	**PB-39**	NiCd Battery 9 VDC 600 mAh	Discontinued				■	
0000	**PB-42L**	Li-Ion Battery 7.4 VDC 2000 mAh	Discontinued		■			
5273	**PB-45L**	Li-Ion Battery 7.4 VDC 1800 mAh	99.00	**74.95**			■	
1798	**PG-2W**	DC Cable	25.00	**17.95**	■		■	
1280	**PG-3J**	Filtered Cigar Lighter Cord	49.00	**36.95**	■		■	■
3471	**PG-4Y**	PC Serial Cable [DB9]	35.00	**31.95**	■	■		
4384	**SC-51**	Soft Case TH-F6A	17.00	**15.95**	■			
5638	**SC-55**	Soft Case TH-D72	22.00	**16.95**			■	
2459	**SMC-32**	Mini Speaker Microphone	70.00	**52.95**	■	■	■	■
1172	**SMC-34**	Speaker Mic with Remote	42.00	**31.95**	■	■	■	■

HT GO BAGS

These insulated bags are great for creating an *Emergency Go Bag* for your HT or scanner. There is plenty of room for your radio, batteries, accessories, *Repeater Directory* and more. The top is zippered and it has a carry strap plus a pocket on the front panel. 8 x 6 x 5" These bags are *not* made by Icom, Kenwood or Yaesu.

Icom Logo - Blue	*Order #5832*	**$9.95**
Kenwood Logo - Green	*Order #5662*	**$9.95**
Yaesu Logo - Orange	*Order #5883*	**$7.95**
Universal Logo - Blue	*Order #5733*	**$7.95**

VIEW ACCESSORIES

We do not have room in our catalog to illustrate accessory items but they may be viewed on our website at:
www.universal-radio.com

NEED A PRICE?

The price of amateur radio gear is constantly changing as a result of coupons and promotions. For current pricing please visit our website at: **www.universal-radio.com**
or call toll-free: **1 800 431-3939**

Are you a collector looking for an older radio model?
Please visit our used equipment department at:
www.universal-radio.com

TYT

MD-2017

- Digital DMR / FM
- CTCSS/DCS
- Voice Prompts
- Scanning Modes
- Color LCD Display
- VHF and UHF
- DTMF Encode/Decode
- 5 or 1Watts RF

The **TYT MD-2017** DMR dual band VHF/UHF handheld transceiver uses the latest TDMA - Time Division Multi Access technology. It also operates in traditional analog FM modes with 12.5 or 25 kHz channel operation. VHF operation is from 136-174 MHz and UHF coverage is 400-480 MHz. The radio features a large color display, VOX, text messaging, LED status, 3,000 memories, 10,000 contacts, CTCSS/DCS, battery meter, low battery alert. Compatible with Tier I & II MOTOTRBO™. The firmware is upgradable. RF power may be selected at 1 or 5 watts. The radio comes with: dual band antenna, belt clip, AC charger, 2200 mAh lithium-ion battery and owner's manual. Programming cable & software included.

MD-2017 *Order #0217* **Please Call**

TYT

MD-390 UHF
MD-390 VHF

- Digital DMR / FM
- CTCSS/DCS
- Voice Prompts
- Scanning Modes
- Color LCD Display
- 1000 Memories
- DTMF Encode/Decode
- 5 or 1 Watts RF

The **TYT MD-390 UHF** DMR handheld transceiver brings you all the features of the popular MD-380 *and* meets the rigorous *Waterproof Dustproof IP67* standard. This HT may be submerged up to 30 minutes in 1 meter of water and will still operate. It uses the latest TDMA technology and also operates in traditional analog FM mode with 12.5 or 25 kHz channel operation. The radio features a large color display. Channels may be labeled with up to 11 characters. The tri-colored LED indicates: Green - rx, Orange - scan or Red - xmit. Coverage on the UHF model is 400 – 480 MHz with 5 or 1 watts. Two rotary click knobs on the top panel are for power/volume and for 16 channel selection. The DTMF keys on the front panel are backlit. With 7.4V 2000 mAh Li-ion battery, drop-in charging base, 110/220 Volt AC adapter, two SMA type antennas, belt clip and carry strap. 5.2 x 2.4 x 1.5 inches.

MD-390 UHF *Order #0390* **Please Call**
MD-390 VHF *Order #6684* **Please Call**

TYT

MD-380 UHF
MD-380 VHF

- Digital DMR / FM
- CTCSS/DCS
- Voice Prompts
- Scanning Modes
- Color LCD Display
- 1000 Memories
- DTMF Encode/Decode
- 5 or 1Watts RF

The **TYT MD-380 UHF** DMR handheld transceiver uses the latest TDMA - Time Division Multi Access technology. It also operates in traditional analog FM mode with 12.5 or 25 kHz channel operation. The radio features a large color display. Channels may be labeled with up to 11 characters displayed. The tri-colored LED indicates: Green - receive, Orange - scanning or Red - transmitting. Coverage on the UHF model is 400– 480 MHz with 5 or 1 watts. The VHF version covers 136– 174 MHz. Two rotary click knobs on the top panel are for power/volume and for 16 channel selection. The DTMF keys on the front panel are backlit. Supplied with 7.4V 2000 mAh Li-ion battery, drop-in charging base, 110/220 Volt AC adapter, SMA type antenna, belt clip and strap.

MD-380 UHF *Order #0380* **Please Call**
MD-380 VHF *Order #0381* **Please Call**

MD-380 Accessories

#	Model	Item Description	Price
6409	**SPK MIC380**	Speaker Mic	**$14.95**
1902	**B ELIM 380**	Battery Eliminator	**13.95**
4016	**BAT-380**	Li-ion 7V 2000 mAh	**23.95**

ICOM

ID-31A *PLUS*

- GPS Receiver
- 1302 Memories
- Large Display
- Access Point.
- Terminal Mode
- Micro SD Card Slot
- IPX7 Construction
- Slim & Compact
- D-STAR DV

The compact **Icom ID-31A+** lets you operate FM *and* D-STAR from 420 to 450 MHz (receive is 400 to 479 MHz). It is IPX7 waterproof and features a built-in GPS! Huge 1302 alphanumeric memory system featuring, 500 Regular, 750 D-STAR Repeater Memories, 50 Scan Edges and 2 Call Channels. There are 200 GPS memory channels (including altitude data). There is a Micro SD card slot for an optional memory card. This can be used to store DVR Incoming/Outgoing Messages, GPS Log and Memory Backup. Built-in CTCSS/DTCS encode/decode for analog FM.

List $350.00 *Order #6031* **Please Call**

ICOM

IC-T70A HD
IC-T70A Sport

- Three RF Levels
- Auto Repeater
- DTMF Keypad
- Battery Saver
- 302 Memories
- Simple Operation
- Encode/Decode

The **Icom IC-T70AHD** 2M/440 HT features military grade rugged construction (IP54 and MIL-STD-810), internal VOX function, CTCSS/DTCS encode/decode and 5.0/2.5/0.5 watts out on both bands. Receive coverage is 136-174 and 400-479 MHz. Enjoy 302 alphanumeric memories and multiple scan modes. Also DTMF memory channels, wide-narrow channel spacing, with 700 mW of audio, backlit alpha display, weather channel alert, keypad, repeater lock-out, auto-repeater function, VOX time-out timer and auto power off. The IC-T70AHD comes with BC-193 Li-ion drop-in tray, BC-123SA AC Adapter, BP-265 Li-ion Battery Pack (7.4VDC 1900 mAh), belt clip and flexible SMA antenna. 2.35 x 4.4 x 1.2" 13.4 oz.

List $296.00 *Order #4070* **Please Call**

Sport version (no Li-ion battery or charger)
List $236.00 *Order #0000* Discontinued

ICOM

IC-V80 HD &
IC-V80 Sport

- Rugged Construction
- Simple Operation
- Three RF Levels
- Backlit LCD
- DTMF Keypad
- Battery Saver
- Encode/Decode
- 207 Alpha Memories
- 16 DTMF Memories

The **Icom IC-V80** ***Sport*** 2 meter handitalkie features military grade IP54 MIL-STD 810 rugged construction, internal VOX function, CTCSS/DTCS encode/decode with tone scan and 5.5/2.5/0.5 watts out. Enjoy 207 alphanumeric memories and 3 scan modes. Also 16 DTMF memory channels, wide-narrow channel spacing, with 750 mW of audio, backlit alpha display, weather channel alert (USA version), keypad, repeater lock-out, auto-repeater function, time-out timer and auto power off. The **IC-V80** ***Sport*** comes with BP-263 AA cell holder and BNC flexible antenna.

List $124.00 *Order #0580* **$99.95**

The **Icom IC-V80-35** ***HD*** version comes with BC-193 fast Li-ion desk charger, BP-265 Li-ion battery (7.4 VDC 1900 mAh) and BNC flexible antenna.

List $199.00 *Order #0280* **$149.95**

ICOM ID-51A *PLUS2*

- GPS Receiver
- 1304 Memories
- Auto Position Reply
- Voice Memory
- DTMF Keypad
- Micro SD Card Slot
- IPX7 Construction
- AM & FM Broadcast
- D-STAR DV

The **Icom ID-51A *Plus 2*** has all the features of the original ID-51A and ID-51A Plus. These included faster data transfer in DV mode, RS-MS1A Android™ application (optional OPC-2350LU cable required), additional Dplus reflector link commands, DV and FM repeater search functions and enhanced D-PRS functions. It covers 2 meters and 440 MHz and receives two bands simultaneously (V/V, U/U & V/U). It is IPX7 waterproof and features a built-in GPS! With 128x104 dot-matrix display, 1304 alphanumeric memories, micro SD card slot for optional memory card (to store DVR in/out messages, GPS log and memory backup). Built-in CTCSS/DTCS encode/decode for analog FM. Independent AM and FM broadcast receiver. Ther Voice Memory feature records incoming and outgoing calls. The latest ***PLUS 2*** enhancements include two new D-STAR modes of operation: Terminal Mode and Access Point Mode. As a bonus, the OPC-2350LU PC/Android™ data cable is included. With BP-271 battery, SMA antenna, OPC-2350LU cable, belt clip, strap and BC-167SA wall charger. 2.3 x 4.2 x 1.1" 9 oz.
List $236.00 *Order #1151* **Please Call**

As above, but with leaf green colored case.
List $236.00 *Order #1551* **Please Call**

DIAMOND ANTENNA RH77CA SRH77CA

The **Diamond RH77CA** is a popular 2M/440 transceive HT antenna and popular with scanner users because it can additionally receive well on: 120, 150, 300, 450, 800 and 900 MHz. This thin, flexible, black antenna is 15 inches and terminates to a 50 ohm BNC.
Order #2368 **$21.95**

The **Diamond SRH77CA** is similar, but terminates to an SMA. *Order #0491* **$23.95**

REMTRONIX REM-800B REM-800S

The **Remtronix REM-800B** (shown) is a very compact flexible antenna providing extremely good VHF-UHF reception especially in the range of 700 to 960 MHz. It has +6dB minimum gain over a standard antenna. This 7 inch antenna terminates to a male BNC.
REM-800B *Order #6119* **$21.95**

The **Remtronix REM-800S** (not shown) is the same, but terminates to a male SMA. These very high quality antennas are made in Japan.
REM-800S *Order #6198* **$21.95**

ICOM Optional Accessories

Order#	Model	Item Description	List Price	Your Price	IC-80AD	IC-91A	IC-92AD	IC-T70A	IC-T90A	IC-V80	ID-31A	ID-51A/+
5334	BC-167SA	Wall Charger	35.00	25.95				■	■			■
4313	BC-139	Drop in Charger	123.00	94.95	■	■			■			
5371	BC-192	Drop in Slow Charger[7]	36.00	26.95				■		■		
2153	BC-191	Drop in Rapid Charger[7]	72.00	54.95				■		■		
1680	BC-193	Drop in Rapid Charger[8]	72.00	51.95				■		■		
5833	BC-202	Drop in Rapid Charger	70.00	54.95							■	■
3130	BP-210N	NiMH 7.2V (V8/V82)	75.00	54.95								
3189	BP-222N	NiCd 7.2V (V8/V82)	45.00	34.95								
5389	BP-263	Battery Case (6xAA)	30.00	22.95				■		■		
2079	BP-264	NiMH 7.2V 1400 mAh	43.00	31.95				■		■		
0939	BP-265	Li-Ion 7.2V 1900 mAh	62.00	46.95				■		■		
5818	BP-271	Li-Ion 7.4V 1150 mAh	99.00	69.95							■	■
1387	BP-272	Li-Ion 7.4V 1880 mAh	139.00	99.95							■	■
2091	BP-273	Battery Case (3xAA)	68.00	49.95							■	■
3150	CP-12L	Cigar Plug Filter	43.00	31.95	■	■	■				■	■
4578	CP-19R	Cigar Plug Filter	52.00	39.95	■	■	■		■		■	■
2744	CP-21LR	Cigar Plug for BC146	62.00	19.98					■			
4855	CS-T70	Windows Software CD[1]	50.00	36.95				■				
4314	CS-T90A	Windows Software CD[1]	42.00	24.98					■			
0000	HM-75A	Remote Speaker Mic	Discontinued		■	■	■[6]		■			
5824	HM-75LS	Remote Speaker Mic	99.00	72.95							■	■
0564	HM-128	Earphone Mic	30.00	20.98		■			■			
0000	HM-131	Remote Speaker Mic	Discontinued		■	■	■[6]		■			
0000	HM-153	Earphone Mic	Discontinued				■[6]					
4808	HM-153L	Earphone Mic	120.00	84.98						■		
0731	HM-153LS	Earphone Mic	175.00	119.98							■	■
2884	HM-158L	Remote Speaker Mic	47.00	33.98						■		
3188	HM-159L	Remote Speaker Mic	77.00	59.95						■		
1475	HM-166LS	Remote Speaker Mic	99.00	73.95							■	■
0253	HM-186LS	Remote Speaker Mic	65.00	49.95							■	■
0000	HS-85	Headset with VOX/PTT	Discontinued		■	■	■[6]		■			
4450	HS-94	Earpiece Headset[5]	25.00	19.95				■[10]	■	■[9]	■[11]	■[11]
0000	HS-95	Neck Arm Headset[5]	Discontinued					■[10]	■	■[9]	■[11]	■[11]
4049	HS-97	Throat Mic[5]	42.00	32.95				■[10]	■	■[9]	■[11]	■[11]
0000	LC-168	Vinyl Carry Case	Discontinued				■					
5438	LC-174	Vinyl Carry Case	45.00	32.95				■				
5822	LC-178	Vinyl Carry Case	45.00	34.95							■	
5916	LC-179	Vinyl Carry Case	35.00	26.95								■
1666	OPC-254L	DC Fused Cord	20.00	14.95	■	■	■	■			■	■
0918	OPC-474	Radio to radio clone cable	20.00	16.95	■	■	■	■	■			
1180	OPC-478	PC to radio RS232 cable	60.00	44.95					■			
4886	OPC-478UC	PC to radio USB cable[2]	70.00	49.95	■			■	■			
4424	OPC-515L	DC Cbl. BC-191/192/193	26.00	19.98				■		■		
4735	OPC-1529R	Serial PC/GPS Cable	41.00	31.95	■	■						
0000	OPC-1797	Plug Adapter Cable	Discontinued				■					
5430	OPC-2004	Headset interface cable	30.00	22.95						■		
0000	OPC-2006	Headset interface cable	Discontinued					■				
0288	OPC-2006LS	Headset interface cable	35.00	26.95							■	■
5821	OPC-2218LU	DV USB Data & Prgm.	75.00	54.95								■
6367	OPC-2350LU	Android™ interface cable	75.00	59.95								■[7]
1086	SJ-1	Silicon Jacket Case	35.00	27.95								■
0000	SP-13	Mono Earphone	Discontinued		■	■	■[6]	■	■		■	■
3209	SP-27	Mono Earphone	35.00	26.95		■	■[6]	■	■			
4740	UT-121	D-Star Unit for 91A	229.00	169.95		■						
0000	VS-1	VOX/PTT Unit[4]	Discontinued						■			

Icom Optional Accessories Footnotes

[1] Requires OPC-478
[2] With Windows drivers CD
[3] Requires OPC-782
[4] Requires HS94, 95 or 97
[5] Requires VS-1
[6] Requires OPC-1797
[7] Not for original ID51A
[8] Charges BP265 only
[9] Requires OPC-2004
[10] Requires OPC-2006
[11] Requires OPC-2006LS

WE ALSO BUY RADIOS

If you have radio equipment you are not using, why not turn it into cash? Universal will purchase clean used equipment. Please call, email or write and tell us what you have to sell. We can provide an immediate quote (subject to inspection).

YAESU

FT-4VR
FT-4XR

- 200Memories
- 5 Watts RF Output
- FM Broadcast
- Scanning
- Weather Alert
- PL Encode/Decode
- DCS Encode/Decode
- ARTS System

The **Yaesu FT-4VR** is a rugged, compact, 2 meter HT with 5 watts of RF power transmitting from 144-148 MHz. Receives 65-108 and 136-174 MHz. Has large backlit display, quick recall keys, scanning, weather alert, keypad entry, FM broadcast receive, ARTS, CTCSS/DCS operation, busy channel lockout, APO, TOT. Has a full 1 Watt of powerful, clear audio. Includes: SBR-28LI 7V 1750 mAh battery, SAD-20 AC adapter, SBH-22 rapid charger, antenna and belt clip. 2.1 x 43.5 x 1.2 inches. 8.9 oz.
List $130.00 *Order #1004* **Please Call**

The **Yaesu FT-4XR** is identical but covers *both* the 2 meter ***and*** 440 MHz bands with 5 watts. Receive range is 65-108, 136-174 and 400-480 MHz.
List $160.00 *Order #6004* **Please Call**

FT-70R

- FM & C4FM *FUSION*
- Wideband Receive
- DTMF Keypad
- Auto Mode Select
- 5 Watts both bands
- PL Encode/Decode
- DCS Encode/Decode
- NOAA Weather Alert

The **Yaesu FT-70R** 144/440 HT provides 5 watts on both bands and has wideband receive from 108 – 579.995MHz. It operates in FM and C4FM *FUSION* digital mode. The unique Automatic Mode Select (AMS) function selects between FM and C4FM *FUSION* digital mode. Users do not need to manually change modes. An LED indicates your operating mode. Other features include: IP54 Rating, Scanning, External DC Jack, Mini USB port, CTCSS/DCS Operation, Automatic Power Off, RF Squelch, Transmitter Time Out Timer and Busy Channel Lock-Out. Includes: SMA flex antenna, SMA Antenna, SBR-24LI 7.4V 1800 mAh Li-Ion Battery, SAD-18B Battery Charger, Belt Clip and USB Cable. 2.36 x 3.86 x 1.3" 9 oz.
List $220.00 *Order #6070* **Please Call**

FT2DR

- Integrated GPS
- Dig. Group Monitor
- Group Short Msg.
- CTCSS/DCS
- AM/FM Wideband Rx
- Weather Alert
- Backlit Keypad & LCD
- AM/FM/SW Receive
- MicroSD Port

The Yaesu **FT2DR** provides 2 meter/440 traditional FM mode and C4FM FDMA digital modes. The 1.7-inch high resolution touch screen guides you through an easy to navigate interface. Yaesu's *Automatic Mode Select* instantly recognizes either digital or analog communications. Other features include: Smart Navigation, Digital Group Monitor and support for the new WiRES-X System. Enjoy 700 mW clear audio, built-in GPS, 1200 bps/9600 bps APRS® function, Dual watch (V/V, U/U, V/U), Dual Monitor (C4FM Digital/C4FM Digital), GPS Logging/Recording capabilities, Water resistant (IPX5 Rating) and MicroSD card slot. Comes with antenna, belt clip, USB cable, SBR-14Li 2200 mAh Li-ion battery and SAD-18B AC charger.
List $540.00 *Order #6002* **Please Call**

FT-25R
FT-65R

- Memories
- 5 Watts RF Output
- FM Broadcast
- Scanning
- Weather Alert
- PL Encode/Decode
- DCS Encode/Decode
- ARTS System

The **Yaesu FT-25R** is a rugged, compact, 2 meter HT with 5 watts of RF power transmitting from 144-148 MHz. Receives 65-108 and 136-174 MHz. Has large white LED display, quick recall keys, scanning, weather alert, keypad entry, FM broadcast receive, ARTS, CTCSS/DCS operation, busy channel lockout, APO, TOT. Has a full 1 Watt of powerful, clear audio. Includes: SBR-25LI 7V 1950 mAh battery, SAD-20B AC adapter, SBH-22 rapid charger, SMA-J antenna and belt clip. 2.1 x 4.1 x 1.2 inches. 9 oz.
List $150.00 *Order #6025* **Please Call**

The **Yaesu FT-65R** is identical but covers *both* the 2 meter ***and*** 440 MHz bands with 5 watts. Receive range is 65-108, 136-174 and 400-480 MHz.
List $190.00 *Order #0065* **Please Call**

VX-6R

- 6 Char. Alpha,
- 900 Memories
- EPCS
- CTCSS/DCS
- AM/FM Wideband Rx
- Weather Alert
- Backlit Keypad & LCD
- Submersible
- Auto In-Range Transp.

The **Yaesu VX-6R** is a tri-band (2M, 220 & 440 MHz) HT with extensive receive 504 kHz ~ 998.99 MHz (cellular blocked). Like the VX-7R, it is submersible (JIS7) and extremely rugged. It puts out 5 Watts on 144 and 430 and 1.5 W on 220. With 900 6-digit alpha memories. It features the new "Emergency Automatic ID" (EAI) system, Enhanced Paging and Code Squelch (EPCS), "Wake-Up" battery saver system. Other features include: black magnesium case, severe weather alert, ARTS - auto in range transponder and multicolor transmit/receive LED. The volume and squelch knobs are oversized. 2.3 x 3.5 x 1.1 inches 9.5 oz. The VX-6R comes with: flexible SMA antenna, FNB-80LI lithium ion battery, NC-72B battery charger, belt clip and wrist strap. Please see accessories on page 69.
List $374.00 *Order #0666* **Please Call**

FT-270R

- 200 Memories
- 5 Watts RF Output
- Backlit Keypad
- Submersible to IPX7
- EPCS
- PL Encode/Decode
- DCS Encode/Decode
- ARTS System

The **Yaesu FT-270R** is a rugged, compact, high-performance 2 meter HT with 5 watts of RF power. The 16 key keypad supports direct frequency entry and 4 column DTMF. It has Enhanced Paging and Code Squelch (EPCS) that allows you to page a particular station and receive calls only from that station. You also get one-touch access to Yaesu's WiRES-II™ VoIP Internet Linking! CTCSS and DCS encode/decode are included with split tone capability. The FT-270R is ultra rugged and submersible to IPX7 specifications (3' for 3 mins). Includes: FNB-83 battery, NC-88B wall charger, SBH-13 charge cradle, antenna and belt clip. 2.4 x 4.72 x 1.3 inches. 13.8 oz.
List $194.00 *Order #5270* **Please Call**

The **Yaesu FT-277R** has very similar features but covers the 440 MHz band instead of the 2 meter band. Receive range is 420-470 MHz. 5W. 16 key.
Order #0000 Discontinued

YAESU

Accessories

Order #	Model	Item Description	List Price	Your Price	FT1XDR	FT2DR	FT-60R	FT-4V/4X	VX-6R	VX-8DR	FT-25/65
4631	ADMS-1J	Software CD & USB cable	48.77	37.95			■				
2050	ADMS-VX6	Software CD & USB cable	48.77	37.95					■		
0000	ADMS-VX8	Software CD & USB cable	Discontinued							■	
4877	BU-2	Bluetooth Unit for radio	110.00	82.95						■	
4555	CD-15A	Lithium-Ion rapid charger	50.00	37.95					■		
5173	CD-41	Rapid Charge cradle[2]	50.00	37.95	■	■				■	
0927	CSC-88	Vinyl Carry Case	20.00	15.95							
2295	CSC-91	Vinyl Carry Case	20.00	15.95					■		
5176	CSC-93	Vinyl Carry Case	20.00	15.95						■	
6068	CSC-97	Vinyl Carry Case	20.00	16.98	■						
0375	CT-27A	Radio to Radio Clone cable	14.00	12.95	■		■				
3729	CT-44	Two pin mic adapter	20.00	16.95	■	■	■				
0951	CT-91	Microphone adapter	20.00	15.95					■		
5175	CT-131	Microphone adapter	40.00	30.95						■	
3539	CT-134	Clone cable	50.00	30.98						■	
5219	CT-136	GPS antenna adapter	50.00	37.95						■	
5915	CT-168	Clone Cable	25.00	21.95	■	■					
6067	CT-170	Clone Cable 11pin-2.5mm	30.00	22.95	■	■					
6069	CT-176	Data Cable	25.00	21.95	■	■					
3116	E-DC6	DC Cord only (plug & wire)	10.00	7.95	■	■	■		■	■	
1373	E-DC21	Filtered Cigar Lighter Cord	50.00	37.95							
3173	FBA-23	Cell Holder (2 x AA)	40.00	29.95							
4163	FBA-25A	Cell Holder (6 x AA)	20.00	16.95			■				
4950	FBA-37	Cell Holder (3 x AA)	23.00	18.95							
3068	FBA-39	Cell Holder (3 x AA)	40.00	29.95	■	■				■	
5032	FEP-4	Earphone for BH1/BH1A	20.00	13.98						■	
3073	FGPS-2	GPS unit	110.00	81.95						■	
0949	FNB-80LI	Li-Ion 7 VDC 1500 mAh	100.00	74.95					■		
1016	FNB-82LI	Li-Ion 7 VDC 1000 mAh	40.00	32.95							
2667	FNB-83	NiMH 7 VDC 1400 mAh	40.00	29.95			■				
4966	FNB-101LI	Li-Ion 7 VDC 1100 mAh	80.00	59.95		■				■	
2631	MH-34B4B	Compact Speaker Mic.	42.00	31.95	■	■	■				
1374	MH-57A4B	Speaker Microphone	30.00	24.95					■		
1801	MH-73A4B	Waterproof Speaker Mic.	63.00	49.95					■		
5130	MH-74A7A	Speaker Microphone	85.00	64.95					■		
5875	MH-85A11U	Mic with Snap Shot Camera	150.00	119.95	■	■					
6747	SAD-19B	AC wall charger for CD-40	30.00	22.95						■	
5854	PA-48B	AC wall charger	30.00	22.95	■					■	
6442	SBR-14LI	Li-Ion 7 VDC 2200 mAh	100.00	79.95	■	■				■	
6764	SBR-25LI	Li-Ion 7 VDC 1950 mAh	40.00	31.95							■
1464	SBR-26LI	Li-Ion 7 VDC 2500 mAh	50.00	41.95							■
6918	SBR-28LI	Li-Ion 7 VDC 1750 mAh	36.00	34.95				■			
6443	SCU-19	PC Programming Cable	80.00	59.95	■	■					
6829	SCU-35	PC Programming Cable	20.00	16.95				■			■
6162	SDD-13	Filtered Cigar Lighter Cord	30.00	23.95	■	■	■		■	■	
6682	SHB-13	Deluxe Spring Belt Clip	10.00	9.95	■	■				■	
6444	SHC-24	Soft Case	20.00	16.95		■					
0669	SU-1	Barometric Sensor Unit	50.00	37.95					■		
3923	SSM16B	Speaker Microphone	26.00	21.95					■		■
6333	SSM-55A	Earphone Mic (former VC27)	42.00	33.95							■
6432	SSM-57A	Earpiece / Microphone	40.00	30.95	■	■	■				
6441	SSM-63A	VOX Single Ear Boomset	84.00	64.95		■					
3980	SSM-64A	VOX Headset (former VC24)	80.00	59.95					■		
2728	SSM-512B	Earpiece / Microphone	30.00	24.95		■		■			■
4615	VAC370B	Desktop Quick Charger	79.00	64.95			■				

Optional Accessories Footnotes

[1] Requires BU-2
[2] Requires AC Adptr.
[3] Requires BU-2, FEP-4
[4] For VX-8GR

APRS® is a registered trademark of Bob Buringa WB4APR.

NIFTY HT REFERENCE CARDS

Today's HTs *are* complicated, but who wants to carry their *Owner's Manual* around? Nifty has come up with a nifty solution. See page 112

DISCONTINUED ACCESSORIES

Universal Radio stocks many accessories for older, discontinued handi-talkies, mobiles and base stations. Please visit our website:

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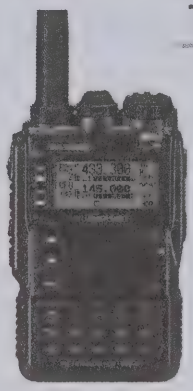
✔ On-line Catalog
✔ Amateur Handheld Transceivers
✔ Discontinued Amateur Handheld Transceivers

YAESU



VX-8DR

- Dot Matrix LCD
- Optional Bluetooth
- Optional GPS
- CTCSS/DCS
- AM/FM Wideband Rx
- Weather Alert
- Backlit Keypad & LCD
- Submersible
- Dual Receive

The **Yaesu VX-8DR** HT provides 5 watts FM on 50/144/430 MHz plus 1.5 watts on 222 MHz. It supports Bluetooth hands-free operation with the optional BU-2 and your Bluetooth headset. There is an optional GPS unit. This radio supports APRS® 1200/9600 bps data communication (B band only) and is WiRES compatible. This latest "D" version adds these APRS enhancements:

✔ Smart Beaconing™ Function,
✔ Station List memories raised from 40 to 50.
✔ APRS® Message mems raised from 20 to 30.
✔ New DIGI-PATH route indication function.
✔ Heads up compass display to the GPS screen.
✔ Msg received LED flashing rate is selectable.
✔ DIGI-PATH route settings raised from 1 to 7.

The VX-8DR is submersible to IPX57 specs. A 7.4 V 1100 mAh Li-Ion battery is included. Features include: simultaneous 2-signal dual receive function with both V+V or U+U, weather alert, barometric sensor, spectrum analyzer with ±60 channels indication with wave monitoring of received/modulated signal! CTCSS and DCS encode and decode are standard. 2.36 x 3.74 x 0.92".

Order #0000 Discontinued

YAESU

FT-60R

- 1000+ Memories
- Emergency Auto ID
- DTMF Keypad
- Alpha Display
- 5 Watts both bands
- PL Encode/Decode
- DCS Encode/Decode
- NOAA Weather Alert

The **Yaesu FT-60R** 144/440 HT has 5 watts output on both bands and features wideband receive from 108-520 and 700-999.9 MHz (less cellular). Two programmable keys are provided for your convenience. Other refinements include: One touch NOAA weather, nine DTMF auto dialer memories, password lock, die-cast weather resistant case, and ARTS. Includes: SMA flex antenna, NiMH battery, SBH-13 charge cradle, belt clip and wall charger. Size: 2.3 x 4.3 x 1.2 inches 13.1 oz.

List $200.00 *Order #0060* **Please Call**

Wouxun®

KG-UV3D

- Voice Guide
- Li-ion Battery
- FM Rx 88-108 MHz
- DTMF Keypad
- Dual Display
- 128 Memories
- Wide-Narrow BW
- Encode/Decode

The **Wouxun KG-UV3D**-2/420-520 dual bander offers 5 watts on 144-148 MHz and 4 watts on 420-450 MHz. VHF extended receive covers 136-174 MHz. Enjoy: 128 alphanumeric memories with scanning, multiple steps (5, 6.25, 10, 25, 50, 100 kHz), CTCSS, DCS, CTCSS/DCS Scan, 1750Hz tone, DTMF encode, high-low power, busy channel lock-out, VOX, wide-narrow (25/12.5kHz), FM broadcast band and keypad lock. Many operational functions and parameters can be menu selected. There are SOS and stopwatch functions. Please note the antenna jack is an SMA-J male. Comes with: Li-ion battery, drop-in charger, flexible SMA-J antenna and belt clip.

Order #5003 **$99.95**

Wouxun®

KG-UV8D

- Voice Guide
- Li-ion Battery
- Dual Band Display
- DTMF Keypad
- Color Display
- 999 Memories
- Wide-Narrow BW
- Encode/Decode

The **Wouxun KG-UV8** dual band 2 Meter/440 MHz amateur dual bander offers sophisticated features and an economy price. It clearly has one of the largest and most impressive displays in the industry. You get 5 watts on VHF and 4 watts on UHF. Other features include: DTMF encode/decode, priority scan, SOS function, Wide-Narrow Bandwidth (25/12.5 kHz), flashlight, voice guide (Chinese/English), and stop watch function. Frequency coverage is: 136-174 and 400-480 MHz. The KG-UV8D comes with: flexible SMA rubber antenna, Li-ion battery pack, intelligent drop-in charger, belt clip, hand strap and printed manual. Please note that this amateur radio is not certified for commercial use.

Order #0000 Discontinued

TDXONE

TD-Q8A

- 4W VHF/4W UHF
- Li-ion Battery
- Wide/Narrow BW
- DTMF Keypad
- Dual Display
- 128 Memories
- Voice Guide
- Encode/Decode

The **TDXone TD-Q8A HT** is a compact hand held transceiver providing 4 watts in the frequency range of 144-148 and 430-450 MHz transmit (136-174 MHz and 400-520 MHz receive). It features 128 memories, simple controls, High/Low power, time-out timer, lock, English/Chinese voice prompt, VOX, CTCSS encode, 1750 Hz burst, dual band display, battery saver, LED flashlight, low battery alert and FM broadcast band reception. It will fit in your shirt pocket with room to spare at only 2.25 x 4.35 x 1.3" 7 ounces. The TD-Q8A comes with Li-ion battery, charge tray, AC charger, standard SMA antenna, manual and belt clip. Free programming download on Universal website.

List $79.95 *Order #6008* **Please Call**

TD-Q8/A Accessories

#	Model	Item Description	Price
6059	**SPKR MIC8**	Speaker Mic (2 pin)	**$19.95**
6084	**USBCABLE8**	USB Program Cable	**19.95**
6092	**MSC20A**	Carry Case	**10.95**
3259	**DC-Q8**	Li-ion 7V 1800mAh	**19.95**

AnyTone®

AT-D868UV

- Digital DMR / FM
- Lion Battery
- Tier I & II
- Scanning Modes
- Color TFT Display
- 4,000 Memories
- 10,000 Talk Groups
- 250 Zones
- 250 Channels per Zone
- 150,000 Digital Contacts
- 12.5/25 FM, 12.5 DMR
- 6/4/2.5/1 Watts RF
- CTCSS/DCS
- Easy Import/Export Ch.

The **Anytone AT-D868UV** DMR / FM *Part 90* handheld transceiver brings dual band VHF/UHF coverage with all the latest features. Coverage is 136-174 and 400-480 MHz. Power may be selected at 6, 4, 2.5 or 1 Watts. Supported bandwidths are 12.5/25 kHz FM and 12.5 kHz DMR. With USB programming cable, belt clip, flexible SMA-J (female) antenna, printed manual, drop in rapid charger, AC adapter and 7.4V 3100 mAh Li-ion battery and hand strap.

AT-D868UV *Order #0868* **Please Call**

AT-D868UV Accessories

#	Model	Item Description	Price
3826	**BATT 868**	Li-ion 7V 3100mAh	**$24.95**
3761	**CAR 868**	Car Charge Plug	**9.95**
3798	**ELIM 868**	Battery Eliminator	**8.95**
3786	**USB 868**	USB Program Cable	**18.95**

Wouxun®

KG-UV6X

- VOX
- Li-ion Battery
- IP55 Durability
- DTMF Keypad
- Dual Display
- 199 Alpha Memories
- Voice Guide
- Encode/Decode

The **Wouxun KG-UV6X** dual bander covers VHF 136-174 MHz and UHF 406.1-470 MHz and the FM broadcast band. Power output is 5 or 2 watts on VHF and 4 or 2 watts on UHF. Tuning steps are: 2.5, 5, 6.25, 10, 12.5, 25, 50 or 100 kHz. CTCSS decode/encode is featured plus DTMF encode, VOX, 500 mW audio output, 199 shared memories, 18 FM band memories, stop watch & SOS functions, 1750 Hz tone burst, low voltage warning, busy channel lock-out, backlit keys and English voice guide. The KG-UV6X is an *F.C.C. Part 90* certified radio and is shipped channelized and keyboard locked. It needs to be programmed to the applicable authorized frequency depending on the user's F.C.C. license type. This radio must be programmed with the KG-UV6 programming CD and WXUSB USB cable (*#5552* $14.95). Includes: drop-in rapid charger with AC cord, belt clip, 1700 mAh Li-ion battery, printed manual, programming CD, flexible antenna with conventional male SMA plug.

Order #3006 **Please Call**

DIAMOND

RH77CA / SRH77CA

Compact flexible antennas are included with all our HTs, and are usually sufficient. But if you are looking for a bit more gain and do not mind a longer antenna, then consider the **Diamond RH77CA**. This flexible BNC HT 6dB gain antenna provides ¼ wave on 2 m and ½ wave on 70 cm. Also a favorite among scanner buffs and those using handheld wideband receivers. 16 inches.

List $24.95 *Order #2368* **$21.95**

The **Diamond SRH77CA** is similar, but terminates to an SMA. *Order #0491* **$23.95**

KG-UV6 Accessories

#	Model	Item Description	Price
5557	**WXAET**	Air Conduit Ear Mic	**17.95**
5876	**LC-6D**	Leather Case	**8.98**
5877	**WXUSB**	USB Pgm. Cable	**14.95**
5553	**WXGHK**	Ear Bud Microphone	**18.95**
5550	**WXAAB**	Cell Holder AA x 5	**11.95**
5549	**WXBTE**	Mobile Batt Eliminator	**14.95**
5551	**WXHCB**	Li-ion 7V 1700 mAh	**24.95**
6591	**WXSPK**	Speaker Mic	**14.98**
5690	**ARC112**	SO239 to SMA ml cable	**18.95**
0292	**BNCJ-SMAP**	BNC fem to SMA adptr	**9.95**
5564	**C CABLE**	HT to HT clone cable	**5.98**

ALINCO

DJ-500T

- Backlit LCD
- CTCSS Enc/Dec
- 200 Alpha Memories
- 5/2.5/1 Watts
- FM Broadcast Band
- Scanning
- Direct Freq. Entry
- Internal VOX
- Tone Burst
- Li-ion Battery & Chgr.

The **Alinco DJ-500T** 2 meter / 440 MH dual-band transceiver. Transmit is 144-148 and 420-450 MHz. Receive is 88-108 MHz [FM broadcast], 136-174 and 400-480 MHz. Power is 5/2.5/1 Watts for both bands. You may set the display to backlight at white, orange or cherry. Robustly built to IP54 dust/splash-proof standard.
The DJ-500T comes with the EDC-189T charge stand, EDC-191T wall adapter, EBP-87 7.4V 1500 mAh Lithium-ion battery, flexible SMA rubber duck antenna and EBC-34 belt clip.
List $169.00 *Order #1656* **$99.95**

ALINCO

DJ-G7T

- Alpha Display
- CTCSS Enc/Dec
- Twin Dials
- 1000 Memories
- Accepts 12 VDC
- Spectrum Display
- Wideband Receive
- Triband Operation

The **Alinco DJ-G7T** tri-band transceiver gives you sophisticated operation on 2 meters, 440 and 1.2 GHz and all in a compact package. Full duplex operation is supported on any two bands. Power output is up to: 5 watts on 144, 4.5 watts on 440 and 1 watt on 1200 MHz. Enjoy wideband receive from 530 kHz to 1299.995 MHz (less cellular) in AM/FM/WFM modes. Refinements include: Twin user-assignable controls, die-cast chassis, spectrum display, backlit display with contrast/brightness adjust, CTCSS/DCS encode/decode, internal VOX and external 13.8 VDC jack. The DJ-G7T comes with the EDC-173 charger, EBP-73 7.4V 1200 mAh lithium-ion battery, flexible SMA rubber duck antenna and belt clip.
List $299.00 *Order #1007* **Please Call**

ALINCO

Accessories

Order #	Model	Item Description	List Price	Your Price	DJ-175T	DJ-596T	DJ-500T	DJ-G7T	DJ-V57T	DJ-MD80	DJ-V17/47T
4711	EBP-64N	Li-ion 7 VDC 1500 mAh	66.65	59.95					■		■
4712	EBP-65N	NiMH 7 VDC 700 mAh	28.65	27.95					■		■
4713	EBP-66N	NiMH 7 VDC 2000 mAh	49.65	46.95					■		■
2371	EBP-71	Li-ion 7 VDC1200 mAh	55.65	49.95	■						
1755	EBP-73	Li-ion 7 VDC 1200 mAh	55.65	54.95				■			
6291	EBP-87	Li-ion 7 VDC 1500 mAh	35.65	32.95			■				
6295	EBP-88	Li-ion 7 VDC 1700 mAh	39.65	37.95			■				
6716	EBP-96	Li-ion 7 VDC 2600 mAh	43.65	40.95						■	
3664	EDC-36	Mobile Charger	25.65	24.95		■		■	■		■
0708	EDC-37	DC Power Cable	9.65	8.95		■			■		■
0103	EDC-43	Mobile DC Power Cable	11.65	10.95		■		■	■[1]		■[1]
0861	EDC-138	Quick charger for EBP-60	62.65	49.98							
4714	EDC-143	Charger for EBP-65/66	35.65	27.98					■		■
4722	EDC-144	Charger for EBP-63/64/65/66	55.65	49.95					■		■
4715	EDC-146	Charger for EBP-65/66	16.00	12.95					■		■
5802	EDC-159	Charger for EBP-63/64	42.65	39.95					■		■
6287	EDC-198	DC Cigar Plug Cord	19.65	18.95			■				
6718	EDC-211	Fast Charge Drop-in Cradle	19.65	18.95						■	
6719	EDC-213	AC Adapter for EDC-211	19.65	18.95						■	
4716	EDH-34	Battery Case (6 x AA)	19.65	16.95					■		■
2049	EDH-35	Battery Case (6 x AA)	25.65	24.95				■			
6293	EDH-40	Mobile Battery Eliminator	20.65	18.95			■				
4717	EDS-10	Microphone/Speaker cable	14.65	12.95				■	■		■
4718	EDS-11	Clone cable	14.65	12.98					■		■
4408	EJ-43U	Digital Board	124.30	69.98		■					
2827	EME-13	VOX Mic & Earphone	76.65	44.98	■	■			◆		◆
2842	EME-15	Tie-pin VOX Mic & Earphone	71.65	39.98	■	■			◆		◆
5193	EME-21A	Hvy Earphone Tie-Clip Mic	103.65	63.98	■						
5689	EME-36A	Earphone Mic	35.65	34.95				■			
6288	EME-56A	Earphone Mic	36.65	33.95			■			■	
2017	EMS-59	Speaker Mic	68.00	39.95	■				◆		◆
4888	EMS-62	Speaker Mic	53.65	43.95					■		■
6289	EMS-76	Speaker Mic	42.65	36.95			■				
1477	ERW-4C	PC Serial Cable [DB9F]	42.65	37.98	■	■		■	■		
1695	ERW- 7	PC USB Cable	49.65	45.95	■	■		■	■		
6642	ERW-13	PC USB Cable	26.65	16.98						■	
4721	ESC-41	Case	26.00	17.98					■		■
5194	ESC-49	Case	26.00	9.98	■						

◆ Needs EDS-10 cable adapter [1]Only charges NiMH batteries

BAOFENG

BF-888S

- UHF 4 Watts
- 16 Channels
- Voice Guide
- CTCSS Encode
- Li-Ion Battery
- Charge Stand
- Battery Save Circuit
- PC Programaable

The **Baofeng BF-888** is a compact 4 watt F.C.C. Part 90 hand-held transceiver covering 400-470 MHz. May be programmed with up to 16 channels. It has CTCSS encode, LED flashlight, low battery alert, VOX and voice guide. Includes: 3.7V 1500 mAh Li-ion battery, AC drop-in charger, standard SMA antenna, printed manual, strap and belt clip. 2.36 x 4.55 x 1.3". 5.4 oz. Requires the appropriate operating license based on frequency of operation. Preprogrammed with common ham frequencies.
List $44.95 *Order #0888* **$19.98**

ALINCO

DJ-MD40

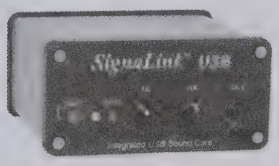
- Analog FM & DMR
- Four RF Levels
- Keypad Freq. Entry
- 1000 Memories
- Keypad Lock
- Scanning
- VFO/Memory Modes
- VOX

The **Alinco DJ-MD40** commercial UHF HT covers 400-480 MHz. It supports operation in traditional analog FM mode as well as DMR digital mode. Output power may be selected at: 5, 2.5, 1 or 0.2 watts. Excellent audio fidelity is achieved by combining DVSI's AMBE+2 vocoder and digital error-correction technology that rejects noise and static. Includes: drop-in charging tray, AC charger, 7.4 V 2600 mAh Li-ion battery, SMA flexible antenna, belt clip and wrist strap.
List $249.95 *Order #2040* **Please Call**

Tigertronics Grants Pass, Oregon

TIGERTRONICS
Manufacturers Of Innovative Communications Products

SIGNA LINK USB



The **Tigertronics SignaLink USB™** radio interface delivers optimum performance while eliminating the need to attach to your computer's existing sound card. Virtually all sound card digital and voice modes are supported. This includes traditional modes such as RTTY, SSTV and CW, as well as today's hottest new modes like PSK31, WSPR, WINMOR, MT-63 and EchoLink. Front panel controls let you adjust your transmit audio, receive audio and transmit delay "on the fly". The SignaLink™ USB works with virtually all radios and can be attached to the Mic jack, Data Port or Accessory Port. Most customers will want to attach the unit to the back of the radio (Data or Accy Port), as this will allow the microphone to stay plugged in. A wide selection of optional extra assembled radio cables are available for common base and mobile radios. A special un-terminated radio cable is also available for radios that use a nonstandard connector, or for use with hand-held radios. Carefully study the product chart below to determine the correct model for your radio.

#	Model	Item Description	Price
5718	**SLUSB 8R**	8 pin round mic	$129.95
5722	**SLUSB 4R**	4 pin round mic	129.95
0733	**SLUSBR J1**	RJ11 mic	129.95
1712	**SLUSB 5PD**	5 pin DIN data/accs.	129.95
2486	**SLUSB 8PD**	8 pin DIN data/accs.	129.95
0884	**SLUSB 13I**	13 pin DIN Icom accs.	129.95
5759	**SLUSB 13K**	13 pin DIN Kenw. accs.	129.95
2879	**SLUSB K3**	Elecraft K3[1]	129.95
1516	**SLUSB RJ4**	RJ45 mic	129.95
2705	**SLUSB 6PM**	6 pin miniDIN data/ac	129.95

[1] rear panel Audio I/O & PTT jacks

We also carry the radio cables separately if you are changing rigs.

3791	**SLCAB 8PD**	Cable 8DIN data	$19.95
5723	**SLCAB 13K**	Cable 13DIN Kenw.	19.95
3766	**SLCAB 6PM**	Cable 6DIN data	19.95
4478	**SLCAB 5PD**	Cable 5DIN data	19.95
2996	**SLCAB NC**	Cable unterminated	9.95
6079	**SLCAB KX3**	Cable Elecraft KX3	19.95

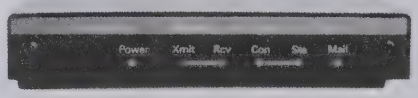
These plug-in modules facilitate programing the Signal Link USB interface:

6424	**SLMOD 5PD**	Yaesu 5PIN DIN	$9.95
6215	**SLMOD 6PM**	6PIN MINI-DIN	9.95
6217	**SLMOD 8PD**	Icom 8PIN DIN	9.95
6216	**SLMOD 8RI**	Icom 8PIN Round Mic	9.95
6425	**SLMOD 8RK**	Kenw 8PIN Round Mic	9.95
6392	**SLMOD 13I**	Icom 13PIN	9.95
6393	**SLMOD 13K**	Kenw 13PIN	9.95

RIGBLASTER BLUE

The **RIGblaster Blue** has a Bluetooth wireless interface! On close-out. See website for details.
RB/BLUE *Order #0677* **$179.98**

Kantronics KPC-3 +



The **KPC-3+** is a small full-featured packet TNC that comes with PBBS, KA-Node, Host Mode, Kiss and WEFAX capabilities. The "Plus" version has: two A/D inputs, two digital output control lines, digital pots so audio drive can be set from the PC, APRS commands and CD manual. Requires 6 to 25 VDC at 30 mA. Now with USB.
List $229.00 *Order #6788* **$209.95**

West Mountain Radio
RIGBLASTER PRO USB

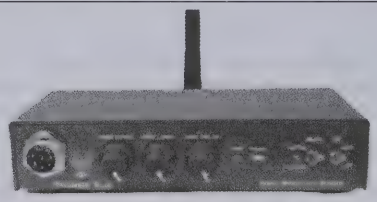
This advanced **Pro USB** model incorporates the time proven operation of the M8 and plus model RIGblasters. New features include:

- ✔ Front panel LED status displays of PTT, CW, FSK, audio source and transmit audio level.
- ✔ Built in control interface for Yaesu CAT or Icom CI-V or Ten Tec TTL.
- ✔ Two independent keying outputs, one for true FSK, and another for keyboard CW keying.
- ✔ Electret microphone bias circuit.
- ✔ Xmit speech processing. ✔ Receive muting.
- ✔ Second mic. operation. ✔ Power switch.
- ✔ Dual headphone outputs with 1/8" & 1/4" jacks.
- ✔ Dual RCA type, PTT input and output jacks.

Includes: AC power supply, CD, mic cable, USB PC cable, (6) patch cords, adapter and stickers. 10.75 x 1.5 x 5.75 inches 19 oz. 120 VAC.
RB/PR/CUSB *Order #3834* **$249.98**

West Mountain Radio
RIGBLASTER ADVANTAGE

The **RIGblaster Advantage** provides the flexibility and functionality that West Mountain Radio RIGblasters are known for *without* relying on a computer's sound card for digital mode communication. Adding the completely integrated sound card eliminates the need to reconfigure a computer's internal sound card, thus freeing the PC's existing sound card to generate system sounds, music etc. Compatible with 2500 radios!
RB/AD/CUSB *Order #5661* **$189.95**



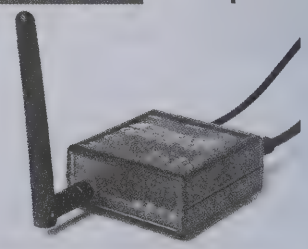
YAESU HRI-200

The **Yaesu HRI-200** uses the third generation WiRES-X technology. Features include:
- Supports both analog *and* C4FM digital modes.
- WIRES-X allows communications between both C4FM digital stations and conventional FM stations via WIRES-X.

- High quality voice communication is achieved by repeating C4FM digital data via the Internet.
- WIRES ID: Easy using alphanumeric characters.
- Smart Access: WIRES-X automatically connects to nodes and rooms by utilizing the Smart Access function. (Digital node station only)
- Preset Search: User can find local node station and receive their frequency setting data for automatic setup. (Digital node station only)
- Activity Monitor: IDs of active nodes and rooms can be searched from the C4FM transceiver via a local node. (Digital node station only)
- News Station: Stores and reads digital data such as text, images and audio data. (Digital node station only)
- WIRES-X provides everything that is needed to maintain a node or room for use by members only.
- Easy setup: Opening ports on the router also can be accomplished by using uPnP standards on uPnP capable routers.
- HRI-200 supports Analog FM mobile transceiver for Analog node station as well as Digital node station with FTM-400D.

Supplied accessories include: USB Cable, Data Cable Mini-DIN 10pin-10pin (CT-174), Data Cable Mini-DIN 10pin-6pin (CT-175), WIRES-X setup disk (CD) and operating manual. 4.4" x 1.0" x 5.2" 12 oz. This device is USB bus powered (+5 VDC).
List $125.00 *Order #5918* **Please Call**

SharkRF openSPOT



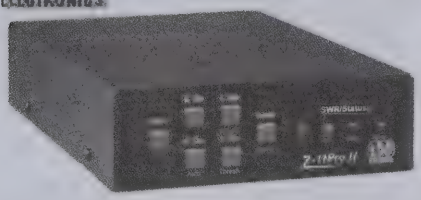
The **SharkRF openSPOT** is a stand-alone digital radio IP gateway / hotspot. It supports DMR (Brandmeister, DMRplus), D-Star (DCS, REF/DPlus, XRF/DExtra, XLX), System Fusion (FCS, YSFReflector) networks. More supported networks and features will be available with new firmware releases. It Supports cross modem modes. Talk with your C4FM radio on DMR, and with your DMR radio on System Fusion networks! With AC adapter, USB & Ethernet cables, antenna and URL to download user manual.
List $269.00 *Order #0136* **Please Call**

Z-100Plus

The **LDG Z-100Plus** is a low cost lightweight automatic antenna tuner that is perfect for portable or fixed operation. It tunes with 0.1 to 125 watts (100W on 6M). Backpackers and QRP operators will appreciate the latching relays so you can remove power once you have tuned. And when the tuner is idle, it is essentially off, drawing less than a microamp! Additionally, the Z-100Plus features 2000 fast memories to decrease tuning time up to 95%! Operation is simple. Provide a continuous carrier, then press and hold the tune button for 1 second. The red LED indicates tuner activity and the green LED indicates an SWR of 1.0 to 1.5 (steady green LED) and 1.5 to 2.0 (blinking green LED). If your antenna is already resonant, press and release the tune button to bypass the tuner. Requires 7-18 VDC at 100 mA.

List $159.99 *Order #5253* **$149.95**

Z-11Pro2



The **LDG Z-11Pro2** is everything you always wanted in a small, portable tuner designed from the ground up for battery operation. At only 5" x 7.7" x 1.5",1.5 pounds, it handles 0.1 to 125 watts, making it ideal for both QRP and standard 100 watt transceivers from 160 - 6 meters. Requires 6 volts DC or 4 x AA or AAA cells (not included).

List $179.99 *Order #5429* **$169.95**

Z-817

The **LDG Z-817** is the ultimate autotuner for QRP radios including the Yaesu FT-817/817ND. It connects to the CAT port (ACC) on the back of the FT-817. A 1 foot CAT cable is included for fast hook up. Push the Z-817 tune button and it will switch to PKT mode, transmit a carrier, tune the antenna, then restore the radio to the previous mode! 2000 memories cover 160 through 6 meters up to 20W. The efficient Z-817 is powered by four AA alkaline batteries (not included) which will last about one year. Requires coax jumper not included.

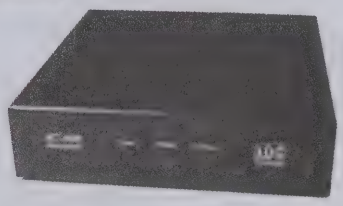
List $129.99 *Order #5236* **$119.95**

IT-100

The **LDG IT-100** is the ideal tuner for your IC-7000. First, it matches up to 10:1 SWR (3:1 on 6 meters) and it has 2,000 memories. Tuning time: 0.1 to 6 seconds full tune, 0.1 seconds memory tune. The power range is 1 to 125 watts (SSB/CW), and 100 watts on 6M. The IT-100 is only 6.5 x 6.5 x 1.5 inches and gets its DC power directly from the radio. SO-239 input and output. The IT-100 works with any Icom radio that supports AH-3/4 Icom antennas such as IC-7000/7300/706MkIIG/703+/718/746Pro/756ProIII. Includes a 14 inch radio cable.

List $179.99 *Order #2103* **$169.95**

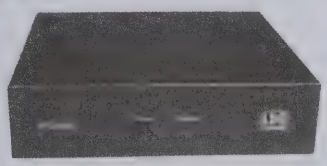
KT-100



The **LDG KT-100** is a flexible, low cost, easy to use autotuner for AT-300 compatible Kenwood transceivers. If you have a TS-2000, TS-50 or TS-480 or any Kenwood rig that is AT-300 compatible, the KT-100 serves as a dedicated tuner. Just press the Tune button *on the radio.* The LEDs on the front panel indicate tuning status, and will show a match in seconds, or even less if you've tuned near a previous frequency in the 2,000 memories. The supplied interface cable matches most modern Kenwood transceivers.

List $199.99 *Order #5184* **$189.95**

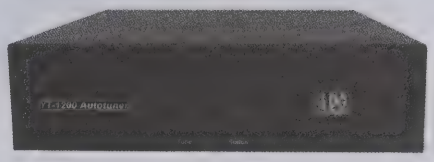
YT-100



The **LDG YT-100** auto tuner fills a need for Yaesu transceiver owners who own the FT-100, FT-100D, FT-857, FT-857D, FT-897 and FT-897D. With the integrated CAT port control, the tuner is powered from the interface. Operation could not be simpler: Just press the tune button on the tuner and everything else happens automatically, including tuning at low power. It operates from 160 to 6 meters with from 1 to 100 watts.

List $199.99 *Order #1224* **$189.95**

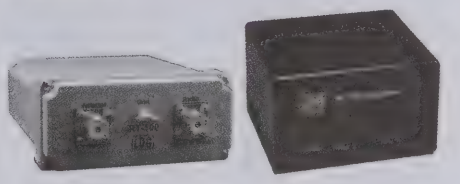
YT-1200



The new **LDG YT-1200** auto tuner fills a need for Yaesu transceiver owners who own the FT-450/D, FT-950, FTDX1200 or FTDX3000. 160 to 6 meters, 1 to 100 watts. Comes with the 1.5 foot CAT/Power interface cable.

List $259.99 *Order #6375* **$239.95**

RT/RC-100



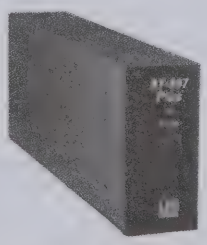
Concerned about power loss due to SWR in your feedline? Consider the **LDG RT/RC-100** which now *includes* the RC-100 remote control unit. This tuner is a 100 watt coax in / coax out remote tuner designed to be placed near the antenna feedpoint. It covers 1.8 to 54 MHz for 0.1 to 100 watt (SSB/CW), 30 watt digital. The 2000 memories provide a tuning time of 0.1 to 6 seconds. It tunes 4 to 800 ohm loads (16 to 150 on 6M), 16 to 3200 ohms with optional 4:1 Balun. The RT/RC-100 is DC powered over the coax, using the supplied RC-100. The rear panel of the RC-100 has two SO-239 jacks and the DC power input jack. DC power cord is included, but you must provide the 12 VDC 500 mA. With U-bolt for pipe, tower or mast mounting.

List $249.99 *Order #4297* **$229.95**

LDG RBA 4:1 balun for ladder line and long wires.

List $30.00 *Order #2286* **$28.95**

AT-897 PLUS

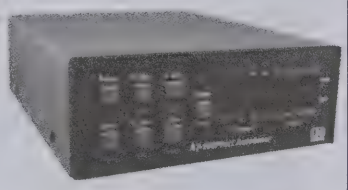


The **LDG AT-897 Plus** autotuner bolts to the side of the FT-897 and takes power directly from the CAT port of the FT-897 and provides a second CAT port. Continuous coverage 1.8 to 54 MHz is provided with an HF power rating of .01 to 100 Watts. Antenna impedance is 6 to 800 Ohms. Tuning time is 1 to 7 seconds.

List $199.99 *Order #0788* **$189.95**

Amateur Antenna Tuners

AT-100 Pro2



The **LDG AT-100 Pro2** desktop tuner covers solid from 1.8 to 54 MHz handling 1 to 125 watts. It features over 2,000 memories for each antenna. The easy-to-read LED bargraphs show power and SWR, and a Function key on the front panel allows you to access mode and status data. It uses latching relays to retain the tuned configuration indefinitely even when powered down; current draw when not tuning is effectively zero. LDG's Switched-L tuning network will match dipoles, verticals, inverted-Vs or virtually any coax-fed antenna. It has all the features of the earlier AT-100 Pro, and adds a *Bypass* and *Antenna* LED. Requires cable and 13.8VDC at 500mA. 7.5 x 5.5 x 2 inches. Two year LDG warranty.
List $229.99 *Order #3213* **$199.95**

AT-600 Pro2

The **LDG AT-600 Pro** will handle up to 600 watts SSB/CW and 300 on RTTY (1.8–30 MHz) and 250 watts on 54 MHz. It features LDG's state-of-the-art, processor-controlled Switched-L tuner with two antenna ports with a front-panel indicator showing which is in use, plus separate memory banks for each antenna. The LED bargraph meters show RF power, SWR and tuner status and there is an LED bypass indicator. You can add the optional M-600 external analog meter (shown above). Requires cable and 13.8VDC at 750 mA.
List $369.99 *Order #5923* **$339.95**

Optional **LDG M-600** external LED backlit meter.
List $129.99 *Order #1555* **$119.95**

✓ Generic LDG tuners require a radio cable.
AL-PAC for Alinco transceivers:
AL-PAC *Order #1193* **$9.98**
IC-PAC for Icom transceivers:
IC-PAC 14 inch *Order #4674* **$9.95**
IC-PAC6 6 foot *Order #5681* **$11.95**
YT-PAC1200 for FT450/950/1200:
YT-PAC1200 *Order #6680* **$14.95**
YTPAC3000 for FT3000:
YT-PAC3000 *Order #6681* **$14.95**
Y-ACC for FT857/897 series transceivers:
Y-ACC *Order #3066* **$9.95**

AT-200 Pro2

The **LDG AT-200 Pro2** will handle up to 200 watts SSB or CW on 1.8 – 30 MHz, and 100 watts on 54 MHz. It will match virtually any kind of coax-fed antenna. Use the AT-200 with longwires, random wires and antennas fed with ladder line with the optional RBA-4:1 balun. It will typically match a 10:1 SWR down to 1.5:1 in just a few seconds. The AT-200 has 16,000 memories, automatically storing tuning data for frequencies and bands as you use them. The rear panel has two input and one output SO239s. Requires 11-16 VDC at 750 mA. This, and other generic (non-mfg. specific), tuners require a radio cable sold separately.
List $259.00 *Order #5705* **$239.95**

AT-1000 Pro2

The **LDG AT-1000 Pro2** has 2,000 memories that store tuning parameters for almost instantaneous memory recall whenever you transmit on or near a frequency you have used before. Just key and it tunes! It has an LED bargraph with two selectable scale ranges (100/1000W) as well as SWR bargraph meter. You can add the optional M-1000 external analog meter (shown above). Dedicated control buttons allow you to fine-tune capacitance and inductance on those rare occasions when the AT-1000Pro2 cannot find a perfect match by itself. The AT-1000Pro2 will tune from 1.8 to 54.0 MHz continuously with 5 and 1,000 watts peak RF input (250 watts on 6m), and will match an amazing range of antennas, from Yagis and dipoles to inverted-Vs and slopers; virtually any coax-fed antenna from 6 to 1000 ohms impedance (16 – 150 ohms on 6 meters). Tuning time is usually under 10 seconds and under 0.2 seconds if you are transmitting near a previous frequency. Longwires or antennas fed with ladder line require an external balun. Includes six foot DC power cable. Will require radio cable (sold separately).
List $539.99 *Order #5590* **$469.95**

Optional **LDG M-1000** external LED backlit analog meter. Shown above on top of AT-1000 Pro 2.
List $129.99 *Order #5591* **$119.95**

MFJ-989D

This famous **MFJ-989D** 1500 watt HF antenna tuner features two massive transmitting capacitors and a roller inductor with a three digit counter to let you get the SWR down to the absolute minimum. Frequency range is 1.8 to 30 MHz. The peak reading cross-needle SWR/power meter has forward power ranges of 300 and 3,000 watts. Outputs for two coax cables, one wire or balanced line and dummy load are provided. A 300 watt, 50 ohm dummy load is built-in. 12.9 x 6 x 11.7". ◆
List $389.95 *Order #1332* **$359.95**

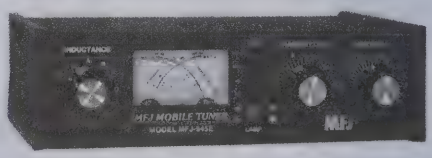
MFJ-949E

The **MFJ-949E** deluxe 300 watt *Versa Tuner II* gives you full coverage from 1.8 to 30 MHz, a peak and average reading cross-needle SWR/power meter and a built-in 300 watt dummy load. Outputs are provided for two coaxial cables and one random wire or balanced line. 10 x 3 x 7 inches.◆
List $189.95 *Order #1146* **$169.95**

MFJ-948

Similar to the MFJ-949E without the dummy load.◆
List $169.95 *Order #0648* **$149.95**

MFJ-945E



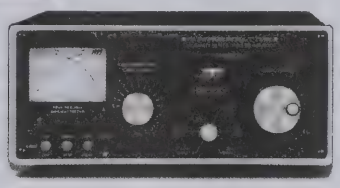
The compact **MFJ-945E** 300 watt tuner with illuminated cross-needle display, is ideal for mobile operation. The convenient placement of controls makes tuning fast and easy while driving. The SWR/power meter reads in 30 and 300 watt scales. 1.8-60 MHz. 8 x 2 x 6 inches. ◆
List $139.95 *Order #1541* **$124.95**

NOTE: MFJ tuners marked with a ◆ feature illuminated meters. For these meters to light you must provide 12VDC or the correct MFJ power supply (usually the MFJ-1312D *#2433* $15.95).

MFJ-969

The **MFJ-969** is the world's only 300 watt AirCore roller inductor tuner covering 160 through 6 meters. You get a cross-needle SWR/wattmeter, 8 position antenna switch, built-in 50 ohm dummy load and a heavy duty 4:1 balun. 3½ x 10½ x 9½". ◆
List $229.95 *Order #3538* **$199.95**

MFJ-986



The innovative **MFJ-986** *Differential-T* 3 KW roller inductor tuner from MFJ covers 1.8 to 30 MHz continuously. The lighted cross-needle meter not only shows you both forward and reflected power at a glance, but also has a peak reading function. Outputs are provided for two coaxial cables, one balanced line and a dummy load. ◆
List $349.95 *Order #0706* **$309.95**

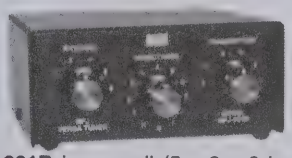
MFJ-941E

The **MFJ-941E** 300 watt PEP antenna tuner covers from 1.8 to 30 MHz, outputs for two coaxial cables and one random wire or balanced line. The SWR/power meter reads forward and reflected power in 30 & 300 watt ranges. 11 x 3 x 7" ◆
List $149.95 *Order #1130* **$129.95**

MFJ-962D

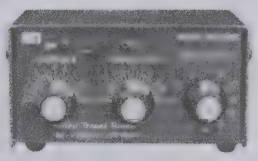
The **MFJ-962D** 1.5 KW Versa Tuner III features two continuously variable capacitors to minimize your SWR. The peak and average reading cross-needle SWR/power meter makes tuning a snap. Outputs for two coax cables, one random wire and one balanced line. 10¾" x 4½" x 15". ◆
List $319.95 *Order #1330* **$269.95**

MFJ-901B



The **MFJ-901B** is a small (5 x 2 x 6 inch) and affordable 200 watt PEP versa tuner. The MFJ-901B matches dipoles, vees, random wires, verticals, mobile whips, beams, balanced and coax lines continuously from 1.8 to 30 MHz. You get SO-239 connectors for transmitter and coax, binding posts for random wire or balanced lines and a wing-nut ground connection. A 4:1 balun for balanced lines is also built into this sturdy, compact tuner. Works with solid state and tube rigs.
List $99.95 *Order #1327* **$89.95**

MFJ-902B



The **MFJ-902B** *Travel Tuner* lays claim to the smallest 150 watt antenna tuner covering 80 to 6 meters. It can be used with coax fed or random wire antennas. It has a tuner bypass slide switch on the back panel. Input and output is via SO-239 jacks. At only 4.5 x 2.25 x 3 inches it is great for DXpeditions, field day, travel and apartment use.
List $109.95 *Order #5928* **$99.95**

MFJ-904

The **MFJ-904** *Travel Tuner* is the same as the MFJ-902, but adds a cross-needle SWR/Wattmeter. Push button selects forward/reflected power in 300/60 and 30/6 Watt ranges. 7¼ x 2¼ x 2¾".
List $129.95 *Order #2867* **$114.95**

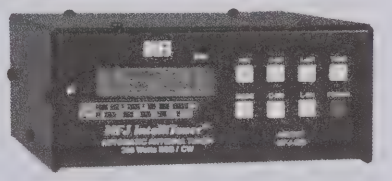
MFJ-971

The **MFJ-971** is a compact 200 watt portable QRP tuner. It provides a convenient cross-needle type SWR/Wattmeter and features a special user-selectable 6 watt range for QRP operation. The T-match tuner covers 1.8-30 MHz and tunes almost any coax, wire, or balanced-feed type antenna (a 4:1 toroid balun is built in for balanced line). Only 6 x 2½ x 6". ◆
List $129.95 *Order #0845* **$109.95**

MFJ-939

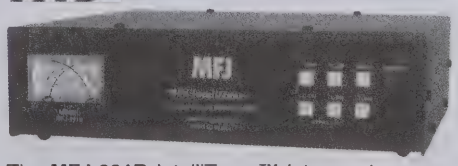
The **MFJ-939** IntelliTuner™ series automatically tunes your coax-fed or random wire antenna as you tune your radio. It covers 1.8 to 30 MHz from 2 to 200 Watts SSB/CW. It matches 6-1600 Ohms (SWR up to 32:1) and is made in the USA. The MFJ-939 learns your antenna system as you operate and stores this in its 20,000 memories. This tuner measures your antenna's complex impedance (R, X), computes the L-network and engages needed components for instant matching. MFJ's Virtual-Antenna memory system gives you 8 antenna memory banks of 2500 memories each. An audio SWR sensor beeps if SWR is <1.5, 2, 2.5, 3. Alarms if SWR >3. SO-239 I/O. 6.5 x 2.875 x 8.75". 2.4 lbs. Interface cable included.
The **MFJ-939I** is for select Icom transceivers.
List $159.95 *Order #6457* **$149.95**
The **MFJ-939K** is for select Kenwood transceivers.
List $159.95 *Order #6317* **$149.95**
The **MFJ-939Y** is for Yaesu FT-450/847/950
List $159.95 *Order #3642* **$149.95**

MFJ-929



The **MFJ-929** IntelliTuner™ lets you automatically tune any coax fed or random wire antenna 1.8-30 MHz at full 200 Watts SSB/CW. It can match 6-1600 Ohms (SWR up to 32:1). You get a digital SWR/Wattmeter with backlit LCD and an antenna switch for two antennas.
List $229.95 *Order #1714* **$199.95**

MFJ-991B

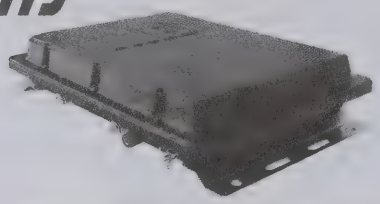


The **MFJ-991B** IntelliTuner™ lets you tune any antenna automatically balanced or unbalanced - - ultra fast. It has an SWR/Watt-meter, antenna switch for two antennas and 4:1 current balun for balanced lines. MFJ's exclusive algorithms give you ultra fast automatic tuning with over 10,000 non-volatile revolving memories. You get a highly efficient L-network, wide 6-1600 ohm matching at full 300 Watts SSB/150 Watts CW, 1.8-30 MHz coverage, Cross-Needle meters, remote control port, radio interface, heavy-duty 16 amp/1000 volt relays and more. 10.1 x 2.8 x 9.2". Requires 12-15 VDC at 1 Amp or optional MFJ-1316 power sup.
List $229.95 *Order #6345* **$199.95**

MFJ-993B

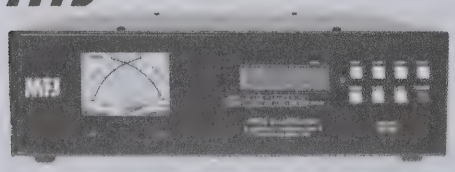
The **MFJ-993B** IntelliTuner™ lets you tune any antenna automatically, balanced or unbalanced - ultra fast. It is complete with SWR/wattmeter, antenna switch for two antennas and 4:1 current balun for balanced lines. You get a highly efficient L-network, wide 6-1600 ohm matching at full 300 Watts SSB/150 Watts CW, 1.8-30 MHz coverage, cross-needle and digital meters, aural SWR meter, backlit LCD display, remote control port, radio interface, heavy-duty 16 amp/1000 volt relays and more. Requires 12-15 VDC at 1 amp (or optional MFJ-1316 *#1469* $21.95). Only 10 x 2¾ x 9".
List $259.95 *Order #1846* **$239.95**

MFJ-993BRT



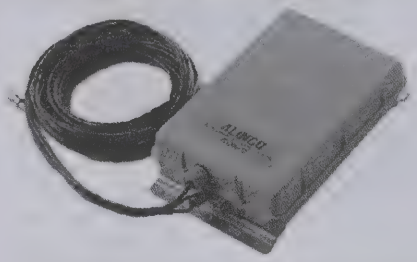
The remote **MFJ-993BRT** ***IntelliTuner™*** covers 1.8 to 30 MHz. It handles 300 Watts SSB, 150 Watts CW and matches 6 to 1600 Ohm antennas. It features heavy duty 16 Amp / 1000 Volt relays and a highly efficient L-network. This tuner includes the MFJ-4117 BiasTee Power Injector to send DC/RF down your coax. MFJ's exclusive IntelliTuner, Adaptive Search and InstantRecall algorithms give you ultra-fast automatic tuning with over 10,000 virtual antenna memories. Has a coaxial antenna connector and a binding post for end-fed long wire antennas. Housed in a durable hard plastic case that measures 9 ¼" x 3" x 14 ¼".
List $299.95 *Order #6145* **$269.95**

MFJ-998



The **MFJ-998** ***IntelliTuner™*** can handle 1500 watts and matches impedances from 12-1600 ohms with over 20,000 memories. The MFJ-998 also includes MFJ's Amplifier Bypass Control™: when a tuning cycle is initiated, it bypasses any in-line amplifier and initiates a low-power CW tuning carrier from your transceiver. A large analog Cross-Needle SWR/Wattmeter displays selectable 300/60 watt or 3000/600 watt forward/reflected full-scale ranges. A backlit two-line LCD meter displays SWR, forward/reflected power, frequency, antenna and autoranging power bargraph. You get 4 antenna memory banks for each of 2 switchable antenna connectors. Has two coax connectors and a binding post for end-fed long wire antennas. Requires 12-15 VDC at 1.3 Amps. Prewired interface cables for Icom, Yaesu and Kenwood are available at $19.95 each.
List $699.95 *Order #4971* **$599.95**

ALINCO EDX-2



The **Alinco EDX-2** automatic antenna tuner can operate 3.5-30 MHz with a 10 foot antenna, or from 1.8-30 MHz with a 40+ foot element. Max. input power is 200 watts. Requires 13.8 VDC. 9 x 4 x 16 inches 8 lbs.
List $385.00 *Order #0932* **$339.95**

YAESU FC-50

The **Yaesu FC-50** is an automatic antenna tuner designed expressly for the FT-891. It can match impedance on HF from 16 to 150 Ohms, and on 6 meters from 25 to 100 Ohms. Two joint plates are included if you wish to physically join the FC-50 and FT-891. Shown above with FT-891 (not included).
List $340.00 *Order #5050* **Call**

YAESU FC-40

The **Yaesu FC-40** FT-857D/897D auto antenna tuner uses the radio's circuitry to control and monitor the FC-40 mounted near the antenna feed point. It matches a wide variety of antennas to within a 2:1 SWR on any amateur band 160 to 6 meters in less than 30 seconds. Matching can be as little as 4 to 60 watts, and matching settings are automatically stored in memory for instant recall when the same frequency range is reselected. With plate and "U" bolts plus 16 foot control cable and 16 foot coaxial cable.
List $440.00 *Order #0643* **$299.95**

ICOM AH-4

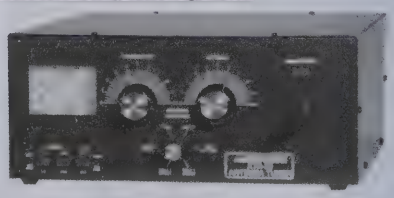
The **Icom AH-4** automatic antenna tuner is designed to work with most Icom transceivers including the Icom 706, 718, 7200, 7300, etc. It reliably matches from 3.5 to 54 MHz when using a wire of at least 23 feet (7 m) and can be used for matching 7 to 54 MHz when used with the optional IcomAH-2b antenna. The built-in 8-bit microprocessor chooses the lower SWR condition from more than 1,040,000 different L/C combinations. Once a frequency is memorized, the AH-4 tunes in less than one second. (Memories are retained only when the power is on). With a 16 foot control cable and 16 foot of raw coax cable and two PL-259s. The AH4 requires about 10 watts to activate and can handle up to 120 watts. It operates from 13.8 VDC (<2 Amps) drawn from the transceiver control cable. 7 x 2.9 x 9.2 inches 2.65 lbs
List $345.00 *Order #3702* **$299.95**

Icom AH-2b whip element 40-6 meters (8.2 feet tall) with bumper mount and stainless steel spring.
List $599.00 *Order #2606* **$389.98**

ICOM AT-180

The **Icom AT-180** is an automatic tuner for 1.9 to 54 MHz operation on select Icom transceivers. The matching impedance is 16.7-150 ohms HF and 20-125 ohms 6M. Tuning accuracy is <1.5:1 SWR. This tuner requires 8 watts to activate and can handle up to 120 watts. The required 13.8 VDC @1.1A is drawn from the supplied 13 pin ACC control cable. Also includes a 38 inch coaxial jumper cable. 6.3 x 2.4 x 8.9 inches 5.3 lbs.
List $599.00 *Order #3438* **$499.95**

AMERITRON ATR-30



The **ATR-30** is Ameritron's own true legal limit antenna tuner allowing operation at sustained true RF output levels of over 1500 Watts continuous carrier into most load impedances. It also handles 3000 watts continuous SSB, CW duty even on 160 meters where most other antenna tuners fail.
List $599.95 *Order #4007* **$549.95**

MFJ-890

The **MFJ-890** gives up-to-the-minute worldwide DX band conditions in minutes on 14, 18, 21, 24, 28 MHz bands using the *International Beacon Network* of 18 beacons throughout the world! You can instantly see which beacon you're hearing on your transceiver as the LEDs activate on its world map. You will then know where to point your antenna. It's fascinating to hear and watch each beacon location light up as they become active across the world. You do not have to copy CW at 22 wpm to identify a beacon. When you hear a beacon, an LED instantly lights up on a world map to show you its location. You can positively identify each beacon -- even if the signal is weak, and the CW is fluttery or distorted. The transmit sequence of the beacons are precision timed using GPS. The MFJ DX Beacon Monitor duplicates this precision timing sequence. A microprocessor and a built-in atomic clock receiver maintain ultra precise timing. The MFJ-890 is a self-contained stand-alone unit. It requires no connection to your transceiver or receiver. It measures 6.75 x 5.25 x 3". It uses 12 VDC, or 110 VAC with optional MFJ-1312D power supply *#2433.*

List $119.95 *Order #4537* **$109.95**
MFJ-1312D PS *Order #2433* **$15.95**

MFJ-267

The **MFJ-267** dry dummy load will handle 1500 watts for ten seconds or 100 watts for ten minutes. SWR is better than 1.3 : 1 up to 30 MHz. It features a built in SWR watt meter. The large 3 inch cross-needle meter reads true-peak or average power. Reads forward and reflected power and SWR on a highly visible dual cross-needle meter movement at a single glance. The frequency coverage is 1.8-54 MHz. Power ranges are 300/3000 watts forward and 60/600 watts reflected. Reads PEP or average power and SWR from 1:1 to 8:1. The wattmeter can be switched between the dummy load or an external antenna. For meter illumination you need 12 VDC, optional 9V battery or optional MFJ-1312D AC power supply. 4.3 x 3.125 x 10 inches.

List $159.95 *Order #2180* **$149.95**
MFJ-1312D PS *Order #2433* **$15.95**

Powerpole® is a registered trademark of Anderson Power Products, Inc.

MFJ-1116

Use the **MFJ-1116** to organize your 12 VDC power leads (up to 15 amps *total*). With meter, switch and 15 amp fuse.

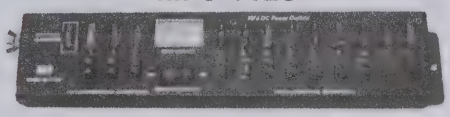
List $59.95 *Order #0171* **$49.98**

MFJ-1118

The deluxe **MFJ-1118** features two fused heavy duty binding posts plus six switched light duty posts. Handles 35 amps total. Meter and switch.

List $84.95 *Order #1763* **$77.95**

MFJ-1128



The **MFJ-1128** DC power strip has 12 outlets. Installed fuses include: three 1 amp, four 5 amp, four 10 amp, one 25 amp, one 35 amp. It has a built-in 0-25 VDC Voltmeter. The ON/OFF switch controls outlets 4 through 12, and handles a total of 20 amps. Outlet 1, 2 and 3 are unswitched and handle 40 amps total. Includes 12 pair of Anderson Powerpole® 40 amp contacts, 10 fuses.

List $104.95 *Order #1499* **$99.95**

MFJ-704

The **MFJ-704** may help keep your neighbors happy while you have fun hamming. This low pass filter simply plugs between your rig and antenna. It suppresses TVI, RFI, telephone and other interference by reducing unwanted harmonics going to your antenna. At the same time your HF signal passes on through with very low loss. Handles full legal power from 1.8 to 30 MHz. SWR below 1.3 to 30 MHz into 50 Ohms. Attenuates above 40 MHz. 3 x 3 x 9 inches.

List $69.95 *Order #2597* **$62.95**

MFJ-260C

This 300 watt dummy load works 1 to 650 MHz (SWR: 1.1:1 1 to 30 MHz, 1.5:1 30-650 MHz) up to 30 seconds. SO-239 input. 2¼ x 2¼ x 7.

List $39.95 *Order #1314* **$34.95**

MFJ-264

The **MFJ-264** dry dummy load will handle 1500 watts for ten seconds or 100 watts for ten minutes. SWR is better than 1.3 : 1 up to 650 MHz.

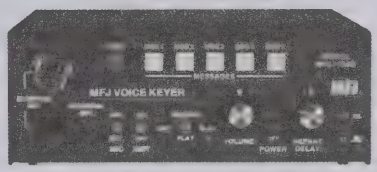
List $74.95 *Order #2256* **$69.95**

MFJ-1164B

The **MFJ-1164B** reduces AC power line RFI, noise, transients, surges generated by computers, motors, RF transmitters, static/lightning by 30 dB and up to 60-80 dB with good earth ground. It provides inductive isolation, capacitive decoupling, RFI rejection, over-voltage protection. MFJ-1164B has four 3-wire, 15 Amp, 120 VAC outlets that are spaced for large adapters. 25 Amps/3000 Watts max. Aluminum case 12 x 3½ x 2 inches.

List $79.95 *Order #4743* **$74.95**

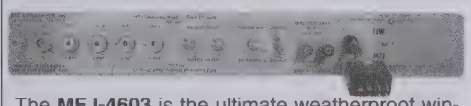
MFJ-434B



The **MFJ-434B** *Voice Keyer* sends your call and contest exchanges in your own voice! Store phrases like *CQ Contest, QTH is Ohio* and more. Save your voice! You can store five messages to a total of 75 seconds. You can repeat messages and vary the delay from 3 to 500 seconds. Plug your 8 pin mic into the MFJ-434B, then the shielded 8 pin output cable into your radio. Internal jumpers select Kenwood, Icom, Yaesu or Alinco. Monitor stored messages with built-in speaker or mini headphone jack. Requires 9-15 VDC, 9 volt battery or optional MFJ-1312D. 6.5 x 2.5 x 6.5".

List $199.95 *Order #1872* **$179.95**

MFJ-4603



The **MFJ-4603** is the ultimate weatherproof window feed-through panel. It brings four SO-239 jacks for HF/VHF/UHF antennas, one N jack, one F jack, balanced line, random wire and ground into your house without drilling through walls. Plus there are DC binding posts and a channel for control cable (rotor, remote switch, etc.) Simply place in window sill and close window. One cut customizes it for any window up to 48 inches. Use horizontally or vertically. Inside/outside stainless steel plates bond all coax shields to ground. Cinch-Jones plug shown is not supplied.

List $89.95 *Order #4861* **$79.95**

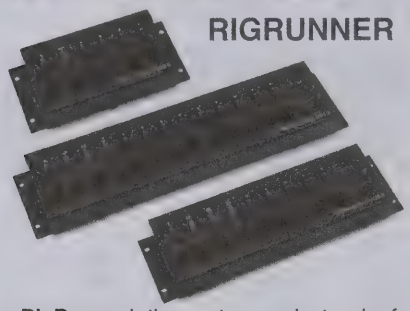
MFJ-701

The **MFJ-701** *Snap-On-Choke* kit allows you to easily eliminate or minimize radio frequency interference (RFI). Just wind your AC cord through the choke. Package of four.

MFJ-701 *Order #1778* **$24.95**

West Mountain Radio

RIGRUNNER



The **RigRunner** is the most convenient and safest way to connect all your 12 VDC equipment to a power source. Eliminate binding posts, frayed wire connections, tape or short circuits! These 13.8 VDC power panels use Anderson Powerpole® connectors. Standardize all your 12 VDC connections using the ARES/RACES adopted Powerpole® system. Each outlet is individually fused with automotive ATC/ATO fuses. Shipped with fuses installed. (ATC/ATO auto fuses are easy to get and are available in 10 values from 1 to 40 amps). Each fuse has a blown fuse LED indicator! LED and audio alerts of safe, over and under voltage conditions. Audio alert is selectable to alarm on over voltage, under voltage or can be disabled. Mounting is easy with supplied 3M Bumpon® protective feet and adhesive pads or screwed down using any #6 or #8 screws (screws not supplied, except *#4768*). The panels below include fuses, but are sold without extra Powerpoles® or cables (see optional C30/PK/12 and C45/PK/12).

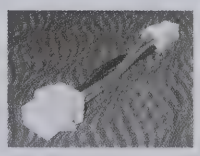
#4657	**RR 4004/USB**	4 Outlets +2 USB	$75.95
#2231	**RR 4005**	5 Outlets	$68.95
#6463	**RR 4007U**	7 Outlets+USB+Met.	$159.95
#2094	**RR 4008**	8 Outlets	$98.95
#6528	**RR 4010S+**	10 Outlets Deluxe	$159.95
#2229	**RR 4012**	12 Outlets	$99.95

RIGRUNNER OPTIONS

#2228	**C30/PK/12**	12 Powerpole® 30A	$12.95
#3154	**C45/PK/12**	12 Powerpole® 45A	$17.95
#3133	**PS/CBL/6**	6 Ft Cable to PS	$14.95
#3146	**EX/CBL/6**	6 Ft Extension Cable	$14.95

Powerpole® is a registered trademark of Anderson Power Products, Inc.

ARC119



This handy **ARC119** 4 inch DC power adapter cable converts the IC7000/TS480 4 pin power plug to accept a 6 pin Molex plug.

ARC-119 *Order #0273* $19.95

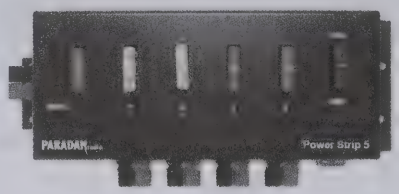
ARC

These extremely flexible 4 foot jumpers are made using very low loss LMR-100® coaxial cable (*not* high loss RG174!).

100-4BU	BNC Male to PL259	*#4791*	$17.95
100-4SU	SMA Male to PL259	*#4792*	$17.95
ARC109	SO239 to SMA Male	*#4513*	$18.95
ARC110	SO239 to BNC Male	*#4512*	$17.95
ARC112	SO239 to SMA Female	*#5690*	$18.95

PARADAN radio

POWER STRIP 5

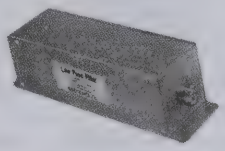


The **Paradan Power Strip 5** has a USB connector for 5 VDC. An LED lights up behind a fuse, if it is blown. This power strip plugs directly into the eight output power strip's "add-on" connector. Comes with a 6 foot #12 AWG power cord with Powerpoles® and ring terminals. Total 40 Amps maximum current. Do not exceed 18 volts. Includes five red and five black Powerpole® connectors. ATC fuses: (1) 40A, (2) 25A, (1) 10A, (1) 1A. Black. 7.25 x 2.5 x 1.0" Made in U.S.A.

Order #6601 $84.95

BENCHER, INC.

YA-1

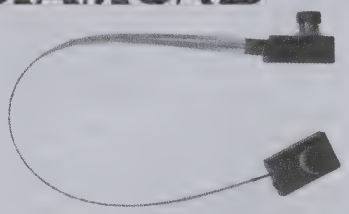


The **Bencher YA-1** is a quality high-power low pass filter. Frequency: 1.8 to 29.7 MHz. Power Rating: 1500 watts continuous, 5000 watts peak. Attenuation is >80 dB at 54 MHz.

List $150.00 *Order #1231* $139.95

DIAMOND

MGC50



The **Diamond MGC50** window/door feed-thru jumper allows you to get the antenna coax into the radio room without drilling holes in the wall or leaving a window/door open. Close the window and screen freely without damaging the coax! For use from 0-1500 MHz. Length: 19.6 inches. Max Power: HF 150W PEP (50W CW), VHF: 40W FM, UHF: 30W FM, 1.2 GHz: 10W FM. VSWR: 500MHz <1.2:1, 1000 MHz <1.3:1, 1500 MHz <2:1. Loss: 144 MHz 0.3dB, 440 MHz 0.6dB, 1200 MHz 1.6dB. 50 Ohm. SO-239 connectors. 19.6 inches.

MGC50 *Order #2375* $49.95

LDG ELECTRONICS

RBA

The **LDG RBA** baluns operate from 1.8 to 30 MHz, up to 200 watts.

RBA-4:1	*Order #2286*	$28.95
RBA-1:1	*Order #2046*	$28.95

PARADAN radio

POWER STRIP 4

The **Paradan Power Strip 4** horizontal design permits easy fan-out from the four Powerpole® outputs. The bright LED digital display accurately indicates the DC voltage. The input is fused, and the strip is RF filtered. Anderson locking clips may be used to secure the connections. 40 Amps maximum capacity. 5-17 VDC. Fuse: one 40 Amp ATC. Black painted aluminum enclosure Includes five red and five black Powerpole® connectors. 5.1 x 2.2 x 1 inches 5.5 oz. Made in U.S.A.

Order #2932 $64.95

COMET

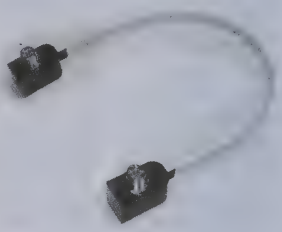
HBO5 HMO5 HSO5

These flexible 18 inch RG-174U jumpers allow for stress-free connection of external antennas to HTs. The HBO5 is shown.

HBO5	BNC Female to SMA Male	*#2985*	$11.95
HM05	SO239 to BNC Male	*#4567*	$11.95
HSO5	SO239 to SMA Male	*#4454*	$13.95
HM05JSJ	SO239 to SMA Female	*#4739*	$14.95

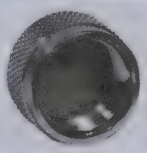
COMET

CTC-50M



The **Comet CTC-50M** window/door feed-thru jumper allows you to get the antenna coax into the radio room without drilling holes in the wall or leaving a window/door open. Close the window and screen freely without damaging the coax! For use from 0-1300 MHz, with max power: HF 100W PEP, VHF: 60W FM, UHF: 40W FM, 900MHz-1.3GHz: 10W FM. Loss: DC-500MHz .5dB, 500-900MHz 1.3dB, 900-1300MHz 1.8dB. VSWR: <500MHz 1.3:1, >500MHz 1.5:1. 50 Ohm. SO-239 connectors. 15.75".

CTC-50M *Order #2750* $45.95



If you carry your HF rig around, consider purchasing a metal, gasketed dust cap for the antenna input. Designed to go over an SO-239 or female N jack.

Order #5907 $1.89

rt SYSTEMS

RT SYSTEMS SOFTWARE

RT Systems makes the best programming software. It *currently* includes a USB cable *and* CD (but *may* be only a web download in the future). For Windows XP, Vista, 7 (32/64 bit) or 8/8.1 (full).

#	Item	For Radio	Price
1833	**ADMS65U**	Yaesu FT65R	$44.95
4982	**ADMS891** CD only	Yaesu FT891	24.95
6510	**ADMSFT1D**	Yaesu FT1DR	48.95
1201	**ADMSFT2D**	Yaesu FT2DR	48.95
6498	**ADMSM400**[1]	Yaesu FTM400	33.95
5829	**ADMS450USB**	Yaesu FT450/D	48.95
6781	**ADMS991AUSB**	Yaesu FT991/A	34.95
6724	**ADMSM3100U**	Yaesu FTM3100R	44.95
6646	**ADMSM3200U**	Yaesu FTM3200R	44.95
6125	**ADMSDX1200**	Yaesu FTDX1200	48.95
6290	**APK500USB**	Alinco DJ-500T	44.95
4087	**APK635USB**	Alinco DR-635	39.98
6294	**APK638USB**	Alinco DR-638	46.95
6710	**APK735USB**	Alinco DR-735	44.95
3985	**APKG7USB**	Alinco DJ-G7T	44.95
2596	**APKSR8**	Alinco DX-SR8T	48.95
2344	**BAO5R**	Baofeng UV5R	44.95
3185	**KRS-D710**	Kenw. TMD710/G	44.95
6054	**RPSAT5888U**	Anytone AT5888U	43.98
6207	**RPSQ8**	TDXone Q8/A	44.95
5857	**WCS2300USB**	Icom IC-2300H	44.95
5359	**WCS2820USB**	Icom IC-2820H	44.95
5828	**WCS7000USB**	Icom IC-7000	48.95
6106	**WCS7100USB**	Icom IC-7100	48.95
0983	**WCS7200USB**	Icom IC-7200	48.95
6305	**WCS7300USB**	Icom IC-7300	33.95
5831	**WCS9100USB**	Icom IC-9100	44.95
5895	**WCSD 31USB**	Icom ID-31A	44.95
6737	**WCSD 51USB**	Icom ID-51A/+/+2	44.95
6299	**WCSD5100USB**	Icom ID-5100A/DLX	44.95
0421	**WCSV8000USB**	Icom IC-V8000	39.98

[1]CD, MicroSD, Reader

power werx.com

PWRbox

When the grid fails or you are off-grid, the **Powerwerx PWRbox** is ready to go. The lid includes dual USB rapid chargers, a digital volt meter and a 12V accessory socket, all protected by an ON/OFF 15Amp circuit breaker switch. In addition, dual Powerpole connections and binding posts are also included for high output applications of 25 amps or more. The On/Off switch has a built-in 15 Amp circuit breaker that protects the Automotive 12V socket (15A maximum), Fast USB charging ports (5V @ 2.1A per port) and the Battery (blue digital) volt meter. The high current, non-switched DC outputs include: two Anderson Powerpole connectors (25A maximum) and Heavy-duty red/black binding posts (25A maximum). Main on/off 15 Amp backlit circuit breaker switch to turn your devices on/off and stop parasitic loads. Heavy duty M6 binding posts accepts 1/4" ring terminals, banana plugs or bare wire. Battery is protected with an inline 25A ATO blade fuse. 7.4 x 9.75 x13.5".

PWRbox-14 for SLA 18 & SLA 35 Ah battery
PWRbox-14 *Order #3752* **$119.95**

PWRbox-F2 For SLA 12-15 Ah battery
PWRbox-F2 *Order #3754* **$119.95**

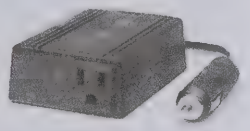
COAX-SEAL SEALANT

Use **Coax-Seal®** to protect any outdoor connection or connector. Coax-Seal is superior to electrical tape or vinyl sealant for moisture protection. The **104** consumer box features one roll which is 60 inches long and ½ inch wide. It will protect 9 connectors.
Coax-Seal 104 *Order #1194* **$2.99**

The **105** commercial box features four rolls, each of which is 12 feet long and ½ inch wide.
Coax-Seal 105 *Order #4960* **$19.95**

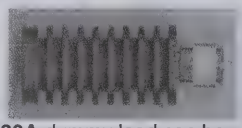
The **106** commercial box features four rolls, each of which is 12 feet long and 1 inch wide.
Coax-Seal 106 *Order #4961* **$24.95**

samlexamerica SI-50HP



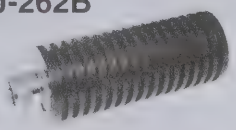
The **Samlex SI-50HP** is a high efficiency modified sine-wave DC-AC inverter that converts 12 Volts DC to 50 watts of AC power at 115 Volts, 60 Hz. The unit comes with a cigar lighter plug connector. It has overload protection, low battery alarm / shut down. AC power is available from a single receptacle on the front panel. 1.4 x 3 x 5".
List $30.00 *Order #5064* **$10.98**

DIAMOND DL-30A



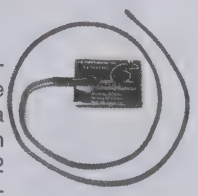
The **Diamond DL-30A** dummy load can be used 0 to 500 MHz with up to 15 watts continuous. Higher wattage may be carefully used on a non-continuous basis. For example, up to 100 watts may be used with 30 seconds *on* and 3 minutes *off*. 50 Ohms.
List $39.95 *Order #0359* **$35.95**

MFJ-262B



The **MFJ-262B** 50 Ohm dry dummy load features copper flanges and beo-ceramic for incredible low thermal resistance and capacitance. The MFJ-262B covers DC to 1 GHz with an SO-239 connector. It handles up to 200 Watts for 5 seconds and 35 Watts continuously. VSWR >1.16 at full range. Only 1 3/4W x 4 3/4H x 1 1/2D inches.
List $59.95 *Order #4039* **$55.95**

RAT TAIL



The patented **RatTail** antenna booster is a passive device that attaches to a handheld radio operating in the marine, aircraft or 2 Meter ham bands. An increase in transmitted energy of 9 to 12dB (800% - 1600%) is seen when measured at a distance of 1.2 miles or more. This increase results from a transformation of your radio's ¼ wave vertical antenna to a ½ wave dipole antenna. The LED in the eye of the rat glows red when you find the right place to mount it on your radio. Made in Canada.
RatTail *Order #2714* **$31.95**

Stellar Labs

LOFT BRKT

Unfortunately many of us are forced to mount our radio antennas in the loft or attic. This loft bracket makes the job easier. It supports antennas up to 10 pounds and can be configured for vertical or horizontal mounting. The 15 inch pole has a 1 inch diameter. The mounting plate is 1.75 x 4 x 2.25 inches. Includes two lag screws and two plastic anchors. For indoor use only.
Order #5890 **$14.95**

CLC198

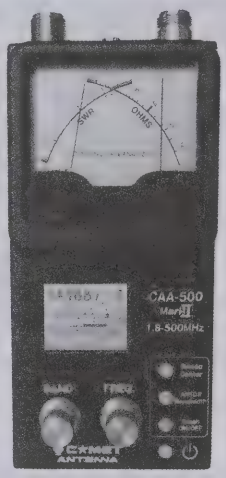
The **Surmen CLC198** is a great way to protect your HT from the elements while you are on the go. It has an adjustable shoulder strap. The HT is secured by a double lock system.
Order #6179 **$14.95**

BALESTAND

The **Nifty Bale Stand** supports radios equipped with a folding wire stand at a more convenient operating and viewing angle. It is made of a heavy duty polycarbonate with a beautiful gloss black finish with 4 anti-skid rubber feet. 4 x 1.8 x 2.7".
BALE STAND *Order #6690* **$19.95**

COMET

CAA-500 MkII



The **Comet CAA-500 MkII** antenna analyzer is a professional class instrument for measuring SWR, resonance and impedance. It features a sensitive, highly accurate Yokogawa meter covering 1.8 to 500 MHz. Impedance is 12.5 to 300 ohms. VSWR 1:1 to infinity. Digital readout accurate to 1 kHz. The device will operate for up to 10 hours from six AA cells (not supplied) or via external 12 VDC. There is an SO239 input 1.8-300 MHz and N input for 300-500 MHz. The TFT color LCD gives graphic and numerical SWR and total impedance with R and X values. Press the Sweep Center button to automatically sweep any amateur band and display up to 5 plot overlays in 5 colors. Way cool!

List $449.00 *Order #6478* **$399.95**
Case CAA-5SC *Order #6144* **$34.95**

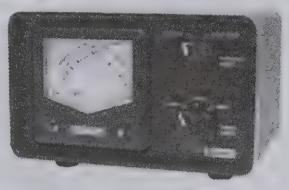
LEIXEN N8

The **Leixen N8** reads your RF transmitted frequency from 1 to 1000 MHz. Additionally, it can read and display your CTCSS tone and DCS code on the second line of the LCD. It will even "confirm" an accurate frequency reading by transmitting a tone back to your radio. There is a 60 second power-off function to conserve battery life. Has removable SMA antenna. Requires 3 AAA batteries (not included).

List $45.00
Order #2859 **$29.98**

DIAMOND

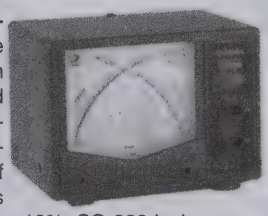
SX-240C



The **Diamond SX-240C** is a precision SWR-power meter featuring cross needle design for measuring SWR and output power simultaneously. This meter is rated from 1.8-54, and 140-470 MHz (Note: 220 MHz uses a correction factor). Power ranges of 30W, 300W and 3kW (HF only). Reads: Forward RF power/Reflected RF power/SWR, PEP monitor. Requires 13.8 VDC. DC cord included. The connector type is SO-239.

List $349.95 *Order #5347* **$289.95**

DAIWA CN-801HP CN-801V



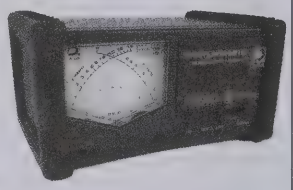
The **Daiwa CN-801HP** cross-needle meter displays both forward and reflected power over a frequency range of 1.8-200 MHz in ranges of 20/200/2000 watts forward. Accuracy is ±10%. SO-239 jacks.

List $174.95 *Order #1035* **$149.98**

The **Daiwa CN-801V** cross-needle meter displays both forward and reflected power over a frequency range of 140-525 MHz in ranges of 20/200 watts forward. Accuracy is ±10%. SO-239 jacks.

List $169.95 *Order #1326* **$148.98**

CN-501H



The **Daiwa CN-501H** cross-needle meter displays both forward and reflected power in a range of 1.8-150 MHz in ranges of 15/150/1500 watts forward. Accuracy is ±10%. SO-239 jacks.

List $114.95 *Order #4501* **$96.95**

CN-501V

The **Daiwa CN-501V** is very similar to the CN-501H but is for VHF/UHF enthusiasts and covers 140-450 MHz in ranges of 20/200 watts forward.

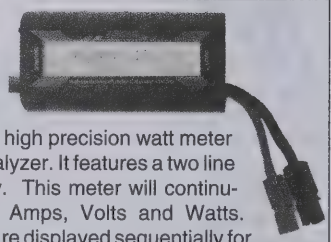
List $114.95 *Order #6740* **$99.95**

CN-501VN

The **Daiwa CN-501VN** is identical to the CN-501V, but features N jacks instead of SO-239 jacks.

List $119.95 *Order #6759* **$109.95**

150A



The **150A** is a high precision watt meter and power analyzer. It features a two line backlit display. This meter will continuously display Amps, Volts and Watts. Other values are displayed sequentially for one second: Amp hours, Watt hours, Amps peak, Voltage minimum, Watts peak. By connecting the meter directly to a battery or power source (6-60 VDC) the meter will power itself. An auxiliary power cable is provided for measurements in the range of 0-6 VDC. Various connection configurations support load testing, battery charging, etc.

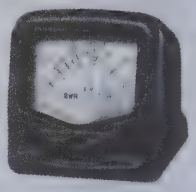
Volts: 0 to 60 volts DC, 0.01V resolution (6-60VDC without use of optional aux power cable)
Amps: 0 to 75A continuous (150A peak) 0.01 Amp resolution
Watts: 0 to 9000 Watts, 0.01W resolution
Amp-hours: 0 to 65 Ah, 0.001 Ah resolution
Watt-hours: 0 to 6554 Wh, 0.1 Wh resolution
Display Type: High-contrast green backlit LCD
Input/Output: Powerpole® connectors
Size: 3.5 x 1.9 x 1"

150A *Order #5150* **$24.98**

Powerpole® is a registered trademark of Anderson Power Products, Inc.

DIAMOND

SX-20C/SX-40C



The **Diamond SX-20C** is a compact SWR-power meter featuring cross needle design for measuring SWR and output power simultaneously. The small size makes it ideal for testing mobile and base installations. Connector type is SO-239. The SX-20C is rated for 3.5-30, 50-54 and 130-150 MHz with ranges of 30 and 300 watts.

The **Diamond SX-40C** is similar to the SX-20C, but rated for 144-470 MHz with ranges of 30 and 300 watts. (220 MHz uses a correction factor).

SX-20C *Order #1340* **$84.95**
SX-40C *Order #1337* **$77.95**

SX-100

The Diamond **SX-100** precision SWR Power meter covers 1.8 - 60 MHz with power ranges of 30, 300 and 3000 watts. Power measurement accuracy is ±10% with an insertion loss of less than 0.1 dB.

List $144.95 *Order #1673* **$134.95**

SX-200

The **SX-200** covers 1.8 - 200 MHz in power ranges of 5, 20 and 200 watts. Measurement accuracy is better than ±10%. Insertion loss is < 0.15 dB.

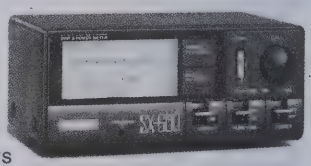
List $99.95 *Order #2315* **$94.95**

SX-400

The **SX-400** VHF/UHF SWR/Power meter covers 140 - 525 MHz in ranges of 5, 20 and 200 watts. Measurement accuracy is better than ±10%.

List $114.95 *Order #2785* **$109.95**

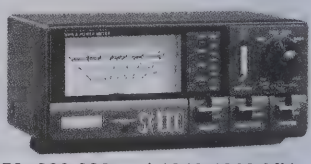
SX-600



The **SX-600** dual-sensor HF/VHF, SWR/Power meter covers 1.8 -160 and 140 - 525 MHz in power ranges of 5, 20 and 200 watts. Measurement accuracy is ±10%. Insertion loss is less than 0.1 dB.

List $184.95 *Order #2698* **$179.95**

SX-1100



The **SX-1100** dual-sensor SWR/Power meter covers 1.8-160, 430-450, 800-930 and 1240-1300 MHz. with power ranges of 5, 20 and 200 watts. Accuracy is ±10% with an insertion loss of less than 0.2 dB for sensor one SO239 (1.8 - 160 MHz) and less than 0.15 dB for sensor two N (430 - 1300 MHz).

List $262.95 *Order #3118* **$239.95**

LDG ELECTRONICS

FT-METER

The **LDG FT-Meter** takes advantage of the meter jack on front of the Yaesu FT-857/D/897/D. The FT-Meter presents an illuminated pale blue, highly readable 2.5 inch face with calibrated scales for signal strength and discriminator reading, and power output, SWR, modulation, ALC action and supply voltage on transmit. Each function is selectable from the radio's menu. Easily visible from anywhere on your desk or dash. Requires 12 VDC.
List $59.99 *Order #1198* **$59.95**

KW203

This in-line USB meter *simultaneously* displays 3.2 to 10 VDC in red and 0 to 3 Amps in blue.
KW203 *Order #6453* **$9.95**

DC DVM

Here is a low cost way to measure DC volts in the range of 3 to 30 volts. The refresh rate is 500mS. Error is 1%. Size is 24x15x10mm. The digits are 0.36 inches high. Three wires: red power "+" (3-28VDC), white sense +, black power/sense "-".
DC DVM BLUE *Order #0794* **$4.95**
DC DVM RED *Order #6165* **$4.95**

TYT

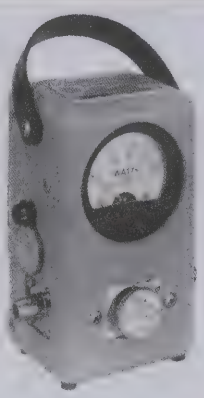
SF-401

The **Tytera SF-401 Plus** reads your RF transmitted frequency from 100 to 3000 MHz (27 to 100 MHz coverage with reduced specs.). *Plus* it can read and display your CTCSS tone and DCS code on the backlit color LCD screen! Display may be set to read 0.000 or 0.0000 MHz. With TCXO and charging LED. Auto-power-off may be set for 1 to 9 minutes. Built-in 3.7V Li-ion battery. Includes: BNC antenna, USB charging cable, AC to USB power supply and comprehensive instruction sheet.
List $79.95 *Order #6768* **$59.95**

AC DVM

This panel meter measure AC volts in the range of 60 to 500 volts. Mounts into 2.5 x1.5" cavity.
AC DVM (RED) *Order #6262* **$9.95**

BIRD 43



The **Bird Model 43** thruline directional wattmeter is a portable insertion-type instrument for measuring forward and reflected power in coaxial transmission lines. It will accurately measure RF power under any load condition. Plug-in elements are available to fit your frequency and power needs. Call for unlisted elements.

Bird 43 UHF *Order #1739* **$344.95**
Bird 43 N *Order #1738* **$347.95**

50H Element 50 watt 2 - 30 MHz. *Order #1743* **$189.95**
250H Element 250 watt 2 - 30 MHz. *Order #1749* **$189.95**
500H Element 500 watt 2 - 30 MHz. *Order #1764* **$189.95**
1000H Element 1000 watt 2 - 30 MHz. *Order #1750* **$189.95**
5000H Element 5000 watt 2 - 30 MHz. *Order #1761* **$289.95**
10000H Element 10000 watt 2 - 30 MHz. *Order #3864* **$289.95**
25C Element 25 watt 100 - 250 MHz. *Order #1736* **$94.95**
50C Element 50 watt 100 - 250 MHz. *Order #1741* **$94.95**
100C Element 100 watt 100 - 250 MHz. *Order #1744* **$94.95**
500C Element 500 watt 100 - 250 MHz. *Order #0243* **$94.95**
50E Element 50 watt 400 - 1000 MHz. *Order #0809* **$94.95**
CC6 Carry Case for 43 meter and 7 elements. *Order #4480* **$89.95**
EC1 Carry Case for 12 elements. *Order #2904* **$42.98**

MFJ

MFJ-845

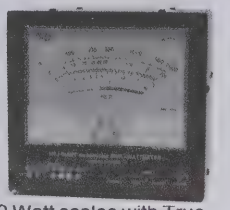
The **MFJ-845** digital SWR/Wattmeter lets you read Forward Power, Reflected Power and SWR all at one time! This model covers 1.8 to 60 MHz for up to 200 Watts. The 2.25 inch (diagonal) LCD screen supports large 1/2 inch *Forward* power digits and smaller 5/8 inch *Reflected* and *SWR* digits. There is an icon that shows battery life. The front panel has power on/off and backlight switches. Requires one AAA battery (not included). There is also a micro USB port. 4 x 3 x 1 inches. SO-239 input and output.
List $99.95 *Order #6469* **$92.95**

MFJ-850B

The **MFJ-850B** line voltage meter helps you see low voltage "Brown out" conditions. It reads voltage from 95-135 volts with 2% accuracy. Plugs into an AC outlet. 2.25 x 2.25 x 1.5"
Order #1849 **$22.95**

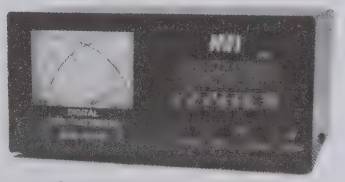
MFJ

MFJ-869



The huge **MFJ-869** features a giant 6½ inch meter. It covers 1.8 to 60 MHz and has 20/200/2000 Watt scales with True-Peak, average forward and reflected power modes and fully-automatic SWR readings. This meter also has an amplifier bypass control and control relay for high SWR. Has audio and visual alarms for high SWR. It even has field-upgradeable firmware. 7 x 5½ x 5 inches. It uses a 9V battery (not supplied), 12 VDC or 110 VAC with optional MFJ-1312D.
List $219.95 *Order #5382* **$189.95**

MFJ-828

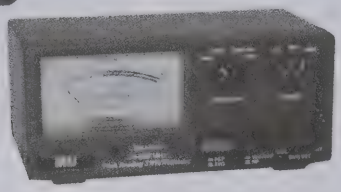


The **MFJ-828** digital SWR/wattmeter/frequency counter measures up to 1500 watts from 1.8 to 54 MHz. The three power ranges are automatically selected: QRP (25W), mid (250W) and high (1500W). True peak or average forward and reflected watts, SWR and frequency can be simultaneously displayed. There are also auto-ranging bar meter modes to display forward and reflected power, SWR and power twin bar meters, or SWR only bar meter. SWR and forward power are also displayed numerically. Peakhold feature freezes the highest forward power displayed bar segment. A built-in frequency counter gives any transmitter a digital frequency readout in continuous carrier mode. The amplifier bypass control feature protects your amplifier by taking your amplifier off-line should the SWR increase above a user-defined limit. Information is displayed on a 2-line 16-character high-contrast backlit LCD display. The MFJ-828 also includes a big lighted cross-needle SWR/wattmeter. Requires 12 VDC at 250 mA (or 110 VAC with optional MFJ-1312D). 6.5 x 2.675 x 6 inches.
List $229.95 *Order #5820* **$214.95**

MFJ-223

The **MFJ-223** color graphic vector impedance antenna analyzer is a wonder! This pocket-sized instrument provides truly accurate SWR, R, X and Z! It provides top notch accuracy and a vivid TFT multi-color display. You get data for SWR, resistance (R), reactance (X), and impedance magnitude (Z) delivered on a color-coded high-resolution bargraph display or sharply defined swept-frequency plots. Get continuous DDS frequency coverage with 100-Hz resolution from 1-60 MHz and a full selection of tuning steps and sweeps. With 3.7V 1800mAh lithium-polymer battery built in. Recharge via any USB port. Requires Micro USB to USB charge cable (not supplied).
2.75W x 3.5H x 1.4D" high-impact case, 5.1 oz.
List $279.95 *Order #6223* **$259.95**

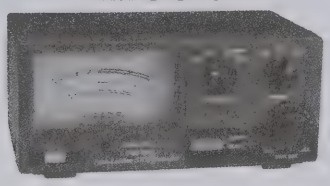
MFJ-874



The **MFJ-874** *GrandMaster* SWR/Wattmeter covers 1.8 - 525 MHz with 5, 20 and 200 watt power ranges. The meter is peak-reading for SSB and average reading for CW/AM and SWR operation. It has a 3.25 x 1.25 inch precision meter with black and red meter scales. The rear panel has air dielectric SO-239 input and output jacks, plus a 12 VDC input jack. A DC power cable is included for dial illumination or you may purchase the optional MFJ-1312D for AC operation. 7.5 x 3.125 x 4.25". 3 watt drive is required for SWR reading.

List $109.95 *Order #6351* **$99.95**
MFJ-1312D PS *Order #2433* **$15.95**

MFJ-870



The **MFJ-870** *GrandMaster* SWR/Wattmeter is the same as the MFJ-874 above, but covers 1.6-60 MHz with 30, 300 and 3000 watt power ranges.

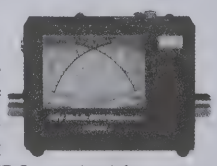
List $79.95 *Order #6099* **$74.95**

MFJ-225

The **MFJ-225** takes RF testing to the next level with this two-port graphic antenna analyzer. It has: LCD graphics, two-port VNA measurement, PC-Interface using IG-miniVNA freeware and precise DDS frequency control. It tunes from 1.5-179.9 MHz with1 kHz resolution with no mechanical band switches or tuning elements. In the field it is self-contained and on the bench its a two-port (S21) desktop machine when used with your PC. It powers itself with 3 AAA NiMh cells (not supplied), a USB port or external 12 VDC (such as the MFJ-1312D).

List $299.95 *Order #1135* **$269.95**

MFJ-818



The **MFJ-818** is a rugged, compact SWR/Wattmeter designed for the abuse of HF mobile and portable operation. 30/300 Watt ranges, 1.8-30 MHz 12 VDC required for meter illumination. SO-239 connectors. 5 x 3 x 2 inches.

List $79.95 *Order #4232* **$74.95**

MFJ-226

The **MFJ-226** VNA antenna analyzer covers 1 to 230 MHz with 1Hz resolution. Frequency sweep plots: SWR, Impedance, Resistance, Reactance, Phase Angle, Complex Return Loss, Smith Chart. The first low-cost handheld VNA (Vector Network Analyzer) to feature OSL (open/short/load) calibration for super accuracy and sign of reactance to positively identify inductive or capacitive reactance. You can measure impedance plus many other critical load parameters directly or through a feedline or test cable with exceptional accuracy, correcting for line loss and phase angle. 32 memories let you capture screens made in the field for download into your PC via mini USB port for later storage and use. The bright 2½ inch LCD backlit screen is easy-to-read, even in direct sunlight. The firmware is upgradeable via USB port. Requires two AA batteries (not included). Includes N to SO-239 adapter. 3.25 x 6.5 x 1" 9.3 oz.

List $339.95 *Order #0226* **$319.95**

MFJ-227

MFJ-227 same but covers 88-228, 330-500 MHz

List $339.95 *Order #0227* **$309.95**

MFJ-805

The **MFJ-805** pocket-sized RFI detector is used to track down RFI caused by radiating cables and wires. It will tell you exactly which cable is radiating RFI so you can eliminate it with a simple toroid or clamp-on RFI filter (not supplied). You can use it to find RFI generated by consumer devices, computers and high-tech office equipment. When you eliminate the RFI source, hash, birdies, whistles and transient noise miraculously disappear from your receiver. Works with mobile installations, ferreting out alternator hash, ignition pulses and microprocessor noise on feedlines and power leads. Usable from VLF to VHF with gain adjustable over a 50dB range. Shirt pocket size. 2.25 x 4.75 x 1". Requires 9V battery (not included).

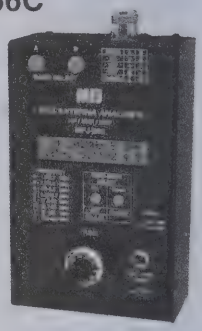
List $99.95 *Order #4029* **$89.95**

MFJ-860

The **MFJ-860** cross-needle meter reads forward and reflected power and SWR simultaneously for 1.8 to 60 MHz up to 300 watts. Power ranges: 30/300 watts forward and 6/60 watts reflected. SO-239 jacks. For meter illumination use 12 VDC or optional MFJ-1312D adapter. 4.5x2.25x3 inches.

List $59.95 *Order #0977* **$54.95**

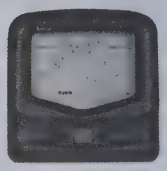
MFJ-266C



The **MFJ-266C** covers 1.5-65, 108-230 and 300-490 MHz. The 10:1 vernier drive and solid state varicap make fine tuning a breeze, and a built-in diallock prevents accidental detuning. Switched backlighting makes LCD screen easy-to-read in any light. Requires eight AA NiMH or NiCad cells (not included), or may be operated from optional MFJ-1312D power supply. Draws 30 mA in counter mode and 140 mA in analyzer mode. Includes N-to-SO-239 adapter. 3.75 x 6.5 x 2.75" 1.32 lbs.

List $359.95 *Order #6495* **$329.95**
MFJ-1312D PS *Order #2433* **$15.95**

MFJ-842



The **MFJ-842** cross-needle meter reads forward and reflected power and SWR simultaneously. For 140 to 525 MHz, 15/150 watts forward and 5/50 watts reflected. Minimum input is 1 watt and accuracy is 10%. SO-239 I/O. Meter illumination if desired requires 12 VDC. 3.35 x 3.45 x 3.75 in.

List $59.95 *Order #4828* **$54.95**

MFJ-822

The **MFJ-822** is the same meter, but for HF/2M covering 1.8 to 200 MHz with 30 /300 Watt ranges.

List $59.95 *Order #4827* **$54.95**

MFJ-826B

The **MFJ-826B** digital SWR/wattmeter/frequency counter measures 100 milliwatts to 1500 Watts from 1.8 to 45 MHz! True peak or average forward and reflected Watts, SWR and frequency can be simultaneously displayed. You can also select autoranging bargraph modes or frequency, SWR and forward power can be displayed numerically. PeakHold™ feature freezes the highest forward power displayed bar segment for one second. Three ranges are automatically selected: QRP (to 25W), mid (250W) and high (1500W). Requires 12 VDC (or MFJ-1312D). 6.5 x 2.675 x 6".

List $179.95 *Order #5158* **$149.95**

MFJ-886B

The **MFJ-886B** pocket sized frequency counter covers the amazing range of 300 Hz to 2.8 GHz. The 10 digit backlit LCD displays to 1 Hz and it has a n 11-segment RF signal strength bargraph. You can select from four selectable gate speeds. There is a built-in 800 mAh battery and a 12VDC output AC adapter is included. 2.5 x 3.25 x 1.2". List $129.95.

Order #6411 **$119.95**

MFJ-801

The **MFJ-801** field strength meter shows the strength of the actual field being radiated from your antenna. Usable from 100 kHz to 500 MHz. Has nonremovable 20 inch telescopic antenna. 2.4 x 3.7 x 1".
List $27.95 *Order #1015* **$27.95**

MFJ-802B

The **MFJ-802B** field strength meter shows the strength of the actual field being radiated from your antenna. Use it to determine the basic radiation pattern of your antenna and instantly know if it radiates better or worse. Check for RF floating around the shack caused by faulty antennas or poorly shielded equipment. For 100 kHz to 500 MHz. The telescoping 40 inch dipole antenna reduces influence of surrounding objects.
List $49.95 *Order #6222* **$44.95**

MFJ-852

The **MFJ-852** power line noise meter lets you search out leaky insulators, loose hardware and corroded ground lines quickly. You can track the noise source right down to the pole, transformer or insulator. Pinpoint faulty dimmers, electric fence arcs, sparking power equipment, neon signs and more! The MFJ-852 is a sensitive superhet AM receiver with a noise field strength meter. A telescopic, direction-finding dipole antenna is balun isolated and optimized for sharp, clearly defined nulls to pinpointing noise sources quickly. It operates in the 135 MHz region where activity is a minimum and radiation from corona and arcing is far more localized. 0.3 µV sensitivity and wide-range AGC give you an ultra wide range noise level meter - over 70dB! Plug in mono headphones and hear the noise you're tracking or plug in a tape recorder (headphones and tape recorder optional). Requires a 9V battery (not included).
List $119.95 *Order #4030* **$99.95**

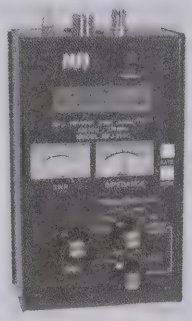
MFJ-828

The **MFJ-828** digital SWR/wattmeter/frequency counter measures up to 1500 watts from 1.8 to 54 MHz. Requires 12 VDC at 250 mA.
List $229.95 *Order #5820* **$214.95**

MFJ-816

The **MFJ-816** HF SWR-wattmeter lets you read forward and reflected power from 1.8 to 30 MHz in ranges of 30 and 300 watts.
List $39.95 *Order #1214* **$34.95**

MFJ-259C



This **MFJ-259C** SWR analyzer features a built-in 10 digit LCD frequency counter. Easily read your antenna's SWR and find its resonance. Just connect your antenna, set the SWR analyzer to the frequency you want and read your SWR. Frequency coverage is from 0.53 to 230 MHz. Monitor your SWR as you adjust your beam or vertical. Shorten or lengthen your dipole to see the effect immediately. Includes a built-in RF Resistance Meter. Uses ten AA cells or MFJ-1312D PS (both optional).
List $299.95 *Order #6228* **$249.95**

MFJ-29D Case *Order #6286* **$23.95**
MFJ-66C Dip Coils *Order #6413* **$29.95**
MFJ-1312D PS *Order #2433* **$15.95**

MFJ-269C

The **MFJ-269C** is similar in looks and function to the MFJ-259C, but also covers 415-470 MHz plus a 12 bit A/D converter for greater accuracy. Requires ten AA NiMH or NiCad cells (not included). Optional MFJ-39D case *#6320* $22.95.
Order #1269 **$349.95**

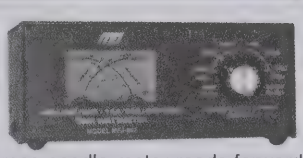
MFJ-224

Use the **MFJ-224** 2 Meter FM analyzer to tune any signal between 143.5-148.5 MHz to monitor field strength in dBm and FM deviation in kHz. Track down jammers fast with the high resolution 60 dB RSSI display. Amateur radio's most accurate S-meter. Requires a 9V battery (not included). 4 x 6.5 x 2.5".
Order #2636 **$159.95**

MFJ-868B

The huge **MFJ-868B** is the world's largest HF SWR/Wattmeter. This giant measures 6½ inches diagonally across the meter scale! MFJ's exclusive TrueActive™ peak reading circuit captures true peak or average forward and reflected power readings. The 1.8 to 60 MHz, 20/200/2000 Watt ranges makes it valuable for QRP or QRO operation. The Power Saver™ circuit turns on the meter only when RF power is being measured. It uses 9 volt battery (not supplied) or 12 VDC or optional MFJ-1312D.
List $149.95 *Order #6077* **$138.95**

MFJ-862



The **MFJ-862** cross-needle meter reads forward and reflected power and SWR simultaneously. This meter covers 144/220/440 MHz. Ranges: 30/300 watts forward and 6/60 watts reflected. Each power range for each band is individually calibrated. Single knob operation makes it easy to use. For meter illumination use external 12 VDC or optional MFJ-1312D (*Order #2433* $15.95).
List $69.95 *Order #0284* **$63.95**

MFJ-207

See the resonant frequency of your antenna without using a transmitter, SWR meter or any other equipment. A frequency counter output is provided for precise digital readout. Coverage is 10 - 160 meters. Requires 9V battery (not supplied) or optional MFJ-1312D.
List $109.95 *#2679* **$99.95**

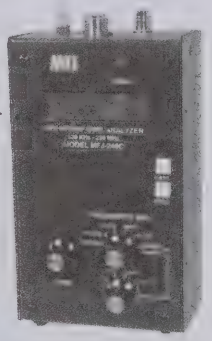
MFJ-208

The same features of the MFJ-207, but over the frequency range of 138 to 156 MHz.
List $99.95 *Order #0244* **$94.95**

MFJ-209C

The **MFJ-209C** has same features of the MFJ-207 over the frequency range of 0.53 to 230 MHz.
List $199.95 *Order #0793* **$179.95**

MFJ-249C



The **MFJ-249C** is very similar to the MFJ-259C but *without* the two analog meters.
List $279.95
Order #6318 **$239.95**

MFJ-815D
MFJ-817C

The **MFJ-815D** 1.8 to 30 MHz cross-needle peak-reading meter lets you monitor both forward and reflected power simultaneously. Select either Peak or Average reading with power ranges of 300/3000 watts forward and 60/600 watts reflected. The Peak Reading function of this meter requires external 12 VDC or a 9 volt battery (not supplied). The meter LED lamps will function with external 12 VDC, but not from a 9 volt battery. SO-239 for I/O.
List $89.95 *Order #2327* **$79.95**

The **MFJ-817C** is similar to the MFJ-815C above, but covers 144/220/440 MHz. instead of HF.
List $99.95 *Order #1858* **$89.95**

cushcraft

BEAM ANTENNAS

You may view these antennas at: www.universal-radio.com

Model	Frequency	Elements	Forward Gain	Boom	Weight	Wind L.	Order #	List Price	Your Price
A3S	20/15/10 Meters	3 Element	8.0 dB	14.0 feet	27 lbs.	4.4 sq/ft.	*#2779*	$599.95	**$554.98**
A4S	20/15/10 Meters	4 Element	8.9 dB	18.0 feet	37 lbs.	5.5 sq/ft.	*#0333*	699.95	**649.95**
A3WS	17/12 Meters	3 Element	8.0 dB	14.0 feet	23 lbs.	4.1 sq/ft.	*#0806*	499.95	**454.98**
MA5B	20/17/15/12/10M			7.3 feet	27 lbs.	3.2 sq/ft.	*#3148*	499.95	**459.95**
TEN-3	28-29.7 MHz	3 Element	8.0 dB	8.0 feet	10 lbs.	2.0 sq/ft.	*#2740*	299.95	**249.98**
A50-3S	50-54 MHz	3 Element	8.0 dB	6.0 feet	7 lbs.	1.8 sq/ft.	*#1405*	139.95	**129.95**
A50-5S	50-54 MHz	5 Element	10.5 dB	12.0 feet	11 lbs.	2.9 sq/ft.	*#1406*	199.95	**184.98**
A50-6S	50-54 MHz	6 Element	11.6 dB	20.0 feet	18 lbs.	4.5 sq/ft.	*#1407*	399.95	**299.98**
A148-3S	144-148 MHz	3 Element	7.8 dB	2.8 feet	1.5 lbs.	0.3 sq/ft.	*#0685*	69.95	**66.95**
A148-10S	144-148 MHz	10 Element	13.2 dB	12.0 feet	6 lbs.	1.2 sq/ft.	*#1961*	139.95	**128.95**
17B2	144-145 MHz	17 Element	18.0 dB	31.0 feet	16 lbs.	3.9 sq/ft.	*#1668*	369.95	**319.98**
26B2	144-148 MHz	26 Element	18.8 dB	15.0 feet	22 lbs.	4.9 sq/ft.	*#0836*	599.95	**504.98**
124WB	144-148 MHz	4 Element	10.2 dB	4.0 feet	3 lbs.	.4 sq/ft.	*#2905*	109.95	**103.98**
A270-6S	144-148/430-450	6 Element	7.8/7.8 dB	2.8 feet	1.7 lbs.	.3 sq/ft.	*#0158*	129.95	**117.95**
A270-10S	144-148/430-450	10 Element	10/10.0 dB	6.2 feet	1.8 lbs.	.7 sq/ft.	*#2402*	169.95	**159.95**
224WB	222-225 MHz	4 Element	10.2 dB	3.0 feet	1.7 lbs.	.3 sq/ft.	*#2821*	99.95	**92.95**
A430-11S	430-440 MHz	11 Element	13.2 dB	4.2 feet	4.0 lbs.	.4 sq/ft.	*#0652*	119.95	**101.98**
A449-6S	440-450 MHz	6 Element	10.5 dB	2.9 feet	3.0 lbs.	.3 sq/ft.	*#0628*	79.95	**71.95**
A449-11S	440-450 MHz	11 Element	13.2 dB	4.2 feet	4.0 lbs.	.4 sq/ft.	*#0629*	119.95	**104.98**
719B	430-450 MHz	19 Element	15.5 dB	13.5 feet	5.6 lbs.	1.2 sq/ft.	*#0711*	249.95	**204.98**

cushcraft

VERTICAL ANTENNAS

You may view these antennas at: www.universal-radio.com

Model	Frequency	Gain	Height	Weight	Wind L.	Order #	List Price	Your Price
R8	40/30/20/17/15/12/10/6M	3.0 dB	28.5 feet	23 lbs.	2.5 sq.ft.	*#0520*	$539.95	**$469.98**
MA5V	20/17/15/12/10M	1.0-2.0 dB	14.7 feet	6.5 lbs.	0.9 sq.ft.	*#4287*	299.95	**259.98**
MA6V	20/17/15/12/10/6M	1.0-2.0 dB	14.7 feet	6.9 lbs.	0.9 sq.ft.	*#0849*	339.95	**314.98**
AR10	28-29.7 MHz	3.7 dB	17.6 feet	4.0 lbs.	1.7 sq.ft.	*#0635*	109.95	**94.95**
AR6	50-54 MHz	3.7 dB	10.1 feet	2.5 lbs.	0.4 sq.ft.	*#0634*	99.95	**91.95**
AR2	135-160 MHz	3.0 dB	3.9 feet	1.5 lbs.	0.2 sq.ft.	*#0633*	64.95	**59.95**
ARX2B	135-160 MHz	7.0 dB	14.0 feet	6.0 lbs.	0.5 sq.ft.	*#0642*	109.95	**104.95**
ARX220B	222-225 MHz	7.0 dB	9.3 feet	5.0 lbs.	0.3 sq.ft.	*#0644*	114.95	**104.98**
AR270	144-148/430-450 MHz	3.7/5.5 dB	3.8 feet	2.0 lbs.	0.3 sq.ft.	*#0583*	129.95	**119.95**
AR270B	144-148/430-450 MHz	5.5/7.5 dB	7.7 feet	2.4 lbs.	0.5 sq.ft.	*#1960*	189.95	**159.95**
AR450	440-460 MHz	3.7 dB	1.4 feet	1.0 lbs.	0.1 sq.ft.	*#0637*	47.95	**44.95**
ARX450B	435-450 MHz	7.0 dB	4.9 feet	1.0 lbs.	0.2 sq.ft.	*#0645*	99.95	**91.98**

UNADILLA

W2AU BALUNS

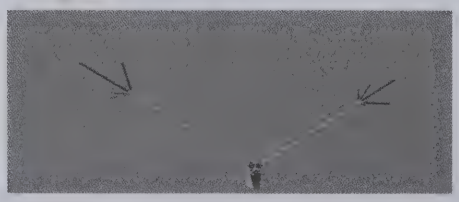
1:1 ratio balun for dipole antennas. Matches 50-75 Ohm coax lines to 50-75 Ohm load. Frequency: 1.8 to 40 MHz. Power Rating: 2000 watts PEP.

1:1 Balun *Order #2076* **$32.95**
4:1 Balun *Order #1888* **$32.95**

W2DU HF BALUN

Maxi-Balun 1:1 ratio for dipole antennas. Frequency: 1.8 to 30 MHz. Power Rating: 5000 watts.
List $31.50 *Order #2452* **$36.95**

COMET CHV-5X



The **Comet CHV-5X** five band rotatable trapped dipole has a compact design for installation even in antenna restricted locations. It covers 40, 20, 15, 10 and 6 meters. Its "V" configuration allows rotation in only a 7 foot radius! This lightweight multi-band antenna is a good choice for restricted areas or for portable or emergency situations. The CHV-5X has heavy elements to survive up to 92 MPH wind gusts. It has extruded aluminum mounting brackets, stainless steel U-bolts and hardware. Each coil has a tuning stub to set the SWR independent of the other bands. Includes CBL-2000 2.5kW Balun. Requires 1-2.5 inch mast (not included). Length 13 feet. Weight 5.8 lbs.
List $339.95 *Order #5783* **$324.95**

- Installing any base antenna can be dangerous! Please see our *Antenna Safety Tips* advisory on our website under *Amateur Base Antennas.*
- Because of our new smaller location, we are discontinueing some of the larger antennas.
- Grounding of base station antennas is advisable. See *Equipment Protection Devices* on page 39.

G3-144

An affordable 2 meter base vertical. Up to 200 watts. Gain is 3 dB. 7.5 ft.
List $84.00 *Order #0259* **$69.95**

G7-144

A high-performance 2 meter vertical for fixed station or repeater operation. Up to 600 watts. N-fitting. Gain is 7 dB. 15.3 ft. 10 lbs.
List $250.00 *Order #1972* **$209.95**

G6-144B

Solid construction and dependable performance make this antenna popular for 2 meter repeater applications. Up to 600 watts. SO-239. Gain is 6 dB. 9.9 ft. 6.8 lbs.
List $170.00 *Order #1971* **$149.95**

G6-270R

Experience superior fixed station or repeater performance with this VHF/UHF fiberglass vertical antenna. 144-148/430-450 MHz 100 Watts. Gain: 6 dB. 102 inches 6 lbs.
List $244.00 *Order #2918* **$218.98**

4-BTV
5-BTV
6-BTV

4-BTV

This four band trap vertical features exceptional mechanical construction and full-band coverage (typical SWR 1.6:1 at band edges). For: 10, 15, 20 and 40 meters. 21.5 ft. 15 lbs.
List $190.00 *Order #2010* **$159.95**

5-BTV

You will have full-band coverage on 10-40 meters (1.6:1 at band edges typical) with this five band trap vertical. For: 10, 15, 20, 40 and 75/80 meters. 24.5 ft. 17 lbs.
List $240.00 *Order #2011* **$199.95**

6-BTV

Constructed of 1¼" heavy wall aluminum this six band trap vertical will handle the full legal limit of power on SSB or CW. For: 10, 15, 20, 30, 40 and 75/80 meters. 24 ft. 16.5 lbs.
List $270.00 *Order #2012* **$229.95**

30-MTK

30 meter add-on kit for the 4-BTV or the 5-BTV.
List $55.00 *Order #2021* **$48.95**

All antennas may be viewed at:
www.universal-radio.com

CGT-144

2 meter collinear trunk lip mount mobile antenna. Gain: 5.2 dB. Length: 7.1 ft. (2.2 m).
List $74.00 *Order #1967* **$64.95**

CGT-220

220 MHz collinear trunk lip mount mobile antenna. Gain: 5.2 dB. Length: 4.9 ft. (1.5 m).
List $74.00 *Order #1968* **$64.95**

MX-2

2 meter 5/8 wave magnetic mount mobile antenna with coax to PL259. 200W Gain: 3.4 dB. 55 inches.
List $44.50 *Order #4479* **$39.95**

MX-270

2 meter/440 MHz magnetic mount mobile antenna with coax to PL259. 200W 2.4/4.0dB. 44 inches.
List $69.00 *Order #4507* **$64.95**

RX-2

2 meter 5/8 wave magnetic mount mobile antenna with coax to PL259. 100W Gain: 3.4 dB. 50 inches.
List $32.00 *Order #0528* **$29.95**

SF-2

2 meter 5/8 wave "Buckbuster" mobile antenna. Gain: 3.4 dB. Height: 50 inches (1.3m).
List $17.75 *Order #1999* **$19.95**

SF-220

220 MHz 5/8 wave mobile antenna. Gain: 3.4 dB. Height: 31 inches (78 cm).
List $20.75 *Order #0834* **$16.95**

MKR-2

Radial Kit to convert mobile antennas to fixed station operation.
List $27.50 *Order #1977* **$23.95**

Mobile HF Antennas

Standard Resonators (400W)

Order #	Model	Item Description	Approx. Bandwidth	List Price	Your Price
1984	**RM-10**	10 Meter Resonator	150-250 kHz	$21.50	**$19.95**
2142	**RM-12**	12 Meter Resonator		21.50	**19.95**
1987	**RM-15**	15 Meter Resonator	100-150 kHz	21.50	**19.95**
2363	**RM-17**	17 Meter Resonator		28.00	**24.95**
1989	**RM-20**	20 Meter Resonator	80-100 kHz	28.00	**24.95**
1991	**RM-30**	30 Meter Resonator	50-60 kHz	33.00	**26.95**
1992	**RM-40**	40 Meter Resonator	40-50 kHz	33.00	**30.95**
2782	**RM-60**	60 Meter Resonator		36.00	**31.95**
2696	**RM-75**	75 Meter Resonator	25-30 kHz	36.00	**31.95**
2825	**RM-80**	80 Meter Resonator	25-30 kHz	36.00	**31.95**

Super Resonators (1KW)

Order #	Model	Item Description	Approx. Bandwidth	List Price	Your Price
1985	**RM-10-S**	10 Meter Resonator	250-400 kHz	$37.00	**$34.95**
1988	**RM-15-S**	15 Meter Resonator	150-200 kHz	39.00	**36.95**
1990	**RM-20-S**	20 Meter Resonator	100-150 kHz	44.00	**39.95**
2463	**RM-40-S**	40 Meter Resonator	50-80 kHz	52.00	**46.95**
1697	**RM-75-S**	75 Meter Resonator	50-60 kHz	69.00	**62.95**
2411	**RM-80-S**	80 Meter Resonator	50-60 kHz	69.00	**62.95**

Mounts & Accessories

Order #	Model	Item Description	List Price	Your Price
1963	**BM-1**	Bumper Mount	$41.00	**$37.95**
1964	**C-29**	Stainless Steel Spring 3/8" 24	32.00	**25.95**
1944	**C-30**	Chrome Plated Spring 3/8" 24	23.50	**20.95**
1965	**C-32**	Chrome Plated Ball Mount	25.50	**22.95**
2067	**GCM-1**	Gutter Clip Mount with 180° Swivel 3/8" 24	16.00	**11.98**
1975	**HLM**	Adjustable Trunk Lip Mount & 17' coax 3/8" 24	28.00	**24.95**
1976	**HOT**	Quick Disconnect Trunk Mount & 17' coax 3/8" 24	29.00	**25.95**
2556	**MBM**	Magnetic Mount & 16' coax3/8" 24	28.50	**24.95**
1981	**MO-1**	Mobile Mast 15" Fold Point	44.00	**41.95**
1982	**MO-2**	Mobile Mast 27" Fold Point	44.00	**41.95**
1206	**MO-3**	54" Mobile Mast	34.00	**30.95**
2120	**MO-4**	22" Mobile Mast	29.00	**25.95**
0696	**QD-2**	Quick Disconnect 3/8" 24	30.00	**26.95**
2306	**RSS-2**	Resonator Spring 3/8" 24	19.50	**17.95**
0187	**RVM**	RV Mount with Swivel Ball	26.00	**23.95**
2003	**SSM-1**	Ball Mount and Spring	63.50	**58.95**
2004	**SSM-2**	Ball Mount	38.00	**30.95**
2005	**SSM-3**	Stainless Steel Spring 3/8" 24 Heavy duty.	38.00	**30.95**
2007	**TLM**	Trunk Lip Mount & 17' coax 3/8" 24	26.25	**23.95**
3737	**VP-1**	Triband Antenna Adapter	10.00	**9.95**

COMET

HF Base Antennas

CHA250B

This broadband vertical antenna amazingly covers 75/80 meters through 6 meters with no gaps! Transmit range is 3.5-57 MHz and receive range is 2-90 MHz. SWR <1.5:1. This 23.5 foot vertical requires no radials and weighs only 7.1 lbs. The antenna consists of five sections of aluminum tubing that slide into each other. The bottom section has the matching network built-in. Very easy assembly. It can handle 250 watts SSB and 125 watts FM. SO-239 input. Rated 67 MPH wind.
List $469.00 *Order #2396* **$439.95**

VHF/UHF Base Antennas

GP-3

Single section, fiberglass vertical base antenna is for 2 meters/440 MHz. Gain: 4.5/7.2 dB Power: 200 watts, SO-239 Height: 5.9 feet.
List $104.95 *Order #3901* **$101.95**

GP-6

Dual section, fiberglass vertical base antenna is for 2 meters/440 MHz. Gain: 6.5/9.0 dB Power: 200 watts, SO-239 Height: 10.3 feet.
List $169.95 *Order #3900* **$159.95**

GP-9

Triple section, fiberglass vertical base antenna is for 2 meters/440 MHz. Gain: 8.5/11 dB Power: 200 watts, SO-239 Height: 17.8 feet.
List $219.95 *Order #3899* **$207.95**

GP-15

Single section, fiberglass vertical base antenna is for 6 meters/2 meters/440 MHz. Gain: 3.5/6.2/8.6 dB Power: 150 watts, SO-239 7.9 feet.
List $174.95 *Order #3902* **$169.95**

GP-98

Double section, fiberglass vertical base antenna is for 2 meters/440 MHz/1200 MHz. Gain: 6.5/9.0/13.5 dB. Power: 150/150/100 watts. N 9.8 feet.
List $209.95 *Order #4780* **$199.95**

VHF/UHF Mobile Antennas

UHV4

Mobile quad-bander for 10, 6 and 2 meters plus 70 cm. 54 inches, fold-over with PL259 [M] connector. Mobile base & coax are not included.
List $119.95 *Order #3248* **$111.95**

UHV6

Mobile quad-bander for 6M/2M/70cm with 3 supplied coils for adding 40, 15 *or* 10 meters. ½ wave on 2M: 2.15dBi gain over a ¼ wave and it's 2 5/8 waves in phase on 70cm: 5.5dBi. Mobile base & coax are not included. Optional elements **L-3.5** 80 meters, **L-14** 20 meters or **L-18** 17 meters.
List $169.95 *Order #4289* **$159.95**

B10 / B10NMO

The **B10** 2 meter/440 MHz mobile antenna provides gain of 2.15 dBi/2.15dBi. VSWR <1.5:1. 50W. Has a black, cellular appearance. Connector type is UHF (for PO mount). 12 inches tall.
List $42.95 *Order #3918* **$39.95**

The **B10NMO** is same but for an NMO mount.
List $42.95 *Order #3919* **$40.95**

SBB1 / SBB1NMO

The **SBB1** 2 meter/440 MHz mobile antenna is a 1/4 wave on 2 meters with 1.5 dB gain and a 3 x ½ wave on 440 MHz providing 2.15 dB gain. VSWR <1.5 : 1 or less. 60W. Flexible 16.5 inches. PO.
List $42.95 *Order #3914* **$39.95**

The **SBB1NMO** is same but for an NMO mount.
List $42.95 *Order #3915* **$40.95**

SBB2 / SBB2NMO

The **SBB2** 2 meter/440 MHz mobile antenna is a 1/4 wave on 2 meters providing 2.15 dB gain and a 5/8 wave on 440 MHz with 3.8 dB gain. VSWR <1.5 : 1. 60W. Flexible 18 inches. For PO mount.
List $42.95 *Order #3912* **$39.95**

The **SBB2NMO** is same but for an NMO mount.
List $42.95 *Order #3913* **$40.95**

SBB5 / SBB5NMO

The **SBB5** 2 meter/440 MHz mobile antenna is ½ wave on 2 meters providing 3 dB gain and a 2 x 5/8 wave on 440 MHz providing 5.5 dB gain. VSWR <1.5 : 1. 120W. 38 inches with fold-over. For PO.
List $58.95 *Order #3910* **$53.95**

The **SBB5NMO** is same but with an NMO mount.
List $58.95 *Order #3911* **$54.95**

SBB7 / SBB7NMO

The **SBB7** 2 meter/440 MHz mobile antenna is a 5/8 wave center load on 2 meters with 4.5 dB gain and a 3 x 5/8 wave on 440 MHz with 7.2 dB gain. VSWR <1.5:1. 70W. 55 inch with fold-over. PO.
List $79.95 *Order #3908* **$72.95**

The **SBB7NMO** is same but for an NMO mount.
List $79.95 *Order #3909* **$73.95**

SBB224 / SBB224NMO

This 2 meter, 220 and 440 MHz mobile antenna is a 1/4 wave on 2M, a 5/8 wave on 220 and ½ wave x 2 on 440 MHz. It provides gain of 2.15/3.6/6.0 dBi. VSWR <1.5:1. 100W. 36 in., Black. For PO.
List $69.95 *Order #3920* **$64.95**

The **SBB224NMO** is same but with an NMO mount.
List $69.95 *Order #3921* **$65.95**

SBB25 / SBB25NMO

The **SBB25** 2 meter mobile antenna is 5/8 wave with 4.1 dB gain. 100W. 56 inches. Black. For PO.
List $52.95 *Order #3904* **$47.95**

The **SBB25NMO** is same but for an NMO mount.
List $52.95 *Order #3905* **$48.95**

SBB15

This 6 meter, 2 meter and 440 MHz mobile antenna handles 120W. 58 inches. For PO mount.
List $89.95 *Order #3031* **$81.95**

CA-2x4SR / CA-2x4SRNMO

This 2 meter/440 MHz mobile antenna is a 5/8 wave on 2 meters and a 5/8 wave on 440 MHz. Gain 3.8 /7.2 dB. VSWR <1.5 : 1 or less. 150W. 40 inches. For PO mount.
List $69.95 *Order #3907* **$60.95**

The **CA-2x4SRNMO** same but for an NMO mount.
List $69.95 *Order #5655* **$61.95**

CSB750A/770A/790A

The heavy-duty Comet CSB 2 meter/440 MHz mobile antennas provide wide frequency range and have a fold-over hinge. Power is 150 watts. They terminate to a PL-259 base and require a PO mount. Mount and coax sold separately.

CSB-750A Gain: 3.6/6.1 dBi Length: 42 inches.
List $74.95 *Order #4781* **$66.95**

CSB-770A Gain: 4.4/6.9 dBi Length: 51 inches.
List $89.95 *Order #4782* **$84.95**

CSB-790A Gain: 5.1/7.7 dBi Length: 62 inches
List $119.95 *Order #4783* **$104.95**

These antennas do *not* include coax or mount. For mount information and photos call or visit:
www.universal-radio.com

HT Antennas

SMA3

2m/440/900 MHz SMA HT antenna is 9.75 inches with a fold-over hinge. Gain is a 1.2/1.7/3.4 dBi. 10 watts. Also very good for wideband receive.
List $39.95 *Order #2975* **$34.95**

CH-32 / SMA-501

The CH-32 M*iracle Baby* is an ultra small BNC HT antenna for 2 m/440 MHz. It is only 1.75" tall. It is a 0 dBi 1/4 wave and can handle up to 10 watts.
List $29.95 *Order #3938* **$26.95**

The SMA-501 is similar to the CH-32, but SMA.
List $29.95 *Order #3934* **$25.95**

CH-75

The Comet CH75 2M/440 HT BNC antenna is 15 inches tall and flexible. Gain is a 0/.32 dBi. 20 W.
List $25.95 *Order #3939* **$22.95**

HT-224

The Comet HT-224 is tri-band HT antenna for 2 meters, 220 and 440 MHz . It is a favorite with TH-F6A owners. 11.5 inches flexible. Gain is: 1.3/1.4/1.8 dBi. For up to 10 watts. Also good for wideband receive: 118-160, 180-280 and 360-520 MHz. Black color. Terminates to an SMA. 50 ohms.
List $39.95 *Order #4462* **$34.95**

DIAMOND

VHF/UHF Base Antennas

F-23H

High-performance 5/8 x 3 wave 2 meter vertical antenna. Gain: 7.8 dB. Power rating: 350 watts Length: 178.3" Weight: 8 lbs. Connector: UHF.
List $159.95 *Order #5119* **$149.95**

X-50A

Compact dual-band vertical antenna. Frequency: 2 meter and 70cm. Gain: 4.5 dB (2m), 7.2 dB (70cm) Power rating: 200 watts Length: 67" Weight: 2.3 lbs. Connector: UHF.
List $99.95 *Order #2553* **$89.95**

X-200A

High-performance dual-band vertical antenna for fixed station or repeater operation. Frequency: 2 meter and 70cm. Gain: 6.0 dB (2m), 8.0 dB. (70cm) Power rating: 200 watts Length: 98.4" (2.5m) Weight: 2.6 lbs (1.2 kg). Connector: UHF.
List $129.95 *Order #2341* **$119.95**

X-300A

An ideal antenna for FM operation on 2 meters (2 x 5/8 wave) and 440 MHz (5 x 5/8 wave) bands. A 2 section fiberglass antenna featuring stainless steel hardware. Frequency: 2 meter and 70cm. Gain: 6.5 dB (2m), 9.0 dB. (70cm) Power rating: 200 watts Length: 10 foot, Connector: UHF.
List $139.95 *Order #4809* **$129.95**

X-510HDN

This high-gain dual-band vertical antenna is ideal for high-performance base station or repeater operation. Frequency: 146-148 / 440-450 MHz. Gain: 8.3 / 11.7 dB. Power rating: 230/250 watts. Length: 204.7" 5.3 lbs. Connector: N. 90 MPH.
List $199.95 *Order #5189* **$199.95**

X-510HDM

This antenna is the same as the X-510HDN listed above, but with an UHF (SO239) rather than an N.
List $199.95 *Order #3503* **$199.95**

X-3200A

The triband 2M/220/440 MHz provides 6/7.8/8 dB gain. Power: 100 watts. Length: 10' 6" Weight: 4 lbs. Connector: UHF (SO239) Wind: 112 MPH.
List $199.95 *Order #3094* **$189.95**

V-2000A

A true high-performance 2 meter, 6 meter and 70cm triband vertical antenna. Gain: 6.2 dB. (2m), 2.15 dB. (6m), 8.4 dB. (70cm). Power rating: 150 watts Length: 98.4" 2.65 lbs. Connector: UHF.
List $169.95 *Order #0153* **$159.95**

- Diamond base antennas are made with a rugged fiberglass sheath and stainless steel hardware.
- For Diamond antennas and accessories not listed, please call or visit our website.

✔ Please see the **Icom AH8000** on page 45.

VHF/UHF Mobile Antennas

NR-770HNMO

High-performance 2 meter/70cm dual-band mobile antenna. Gain: 3.0 dB/5.5dB. Power rating: 200 watts. Length: 39" 0.46 lbs Mount: NMO.
List $53.95 *Order #1915* **$49.95**

NR-770HA

Same as NR-770HNMO but with a PO mount.
List $55.95 *Order #2568* **$49.95**

NR-72BNMO

A great compact dual-band mobile antenna. Gain: 2.15 dB.-2m, 2.15 dB.-70cm. Power rating: 100 watts. Length: 14" (356mm) Black. Mount: NMO.
List $44.95 *Order #1578* **$39.95**

NR-73BNMO

A great, compact dual-band mobile antenna. Gain: 2.15 dB.-2m, 5.3 dB.-70cm. Power rating: 100 watts. Length: 34" (863mm) Black. Mount: NMO.
List $57.95 *Order #0299* **$51.95**

SG-7500A

High-performance dual-band mobile antenna. Gain: 3.5 dB. (2m), 6.0 dB. (70cm). Power: 150 W. Length: 41" Wt: .8 lbs. Mount: PO (SO-239).
List $69.95 *Order #2366* **$64.95**

SG-7900A

Maximum performance 2M/440 mobile antenna. Gain: 5.0 dB/7.6 dB. Power rating: 150 watts Length: 62" Weight: .8 lbs. Mount: PO (SO-239).
List $109.95 *Order #0142* **$107.95**

CR-320A

The CR-320A triband is a 2 meter, 220 MHz and 440 MHz black mobile antenna. Gain is 2.15/3.8/5.5 dB. This antenna can handle up to 200/100/200 watts. 34 inches high. Mount: PO (SO-239).
List $79.95 *Order #3095* **$74.95**

CR-8900A

The Diamond CR-8900A quadband is a 10 meter, 6 meter, 2 meter and 440 MHz mobile antenna. It is a 1/4 wave on 10 and 6 meters and a 1/2 wave on 2 meters (2.15 dBi) and a 2 x 5/8 wave on 440 MHz (5.5 dBi). For up to 60 watts FM. 50 inches tall and weighs 18 oz. The connector type is UHF (for PO mount). Not recommended for a magnet mount. A great match for the FT-8900R.
List $109.95 *Order #2123* **$104.95**

CR-627B / CR627BNMO

The Diamond CR-627B triband antenna is a 1/4 wave on 6 meters providing 2.15 dB gain and a 3 1/4 wave on 2 meters providing 4.5 dB gain and a 3 5/8 wave on 440 MHz providing 7.2 dB gain. For up to 120 watts. 60 inches. Connector type is UHF (for PO mount). Not for magnet mounts.
List $109.95 *Order #2062* **$100.95**

HT Antennas

RH77CA / SRH77CA

This flexible BNC HT 6dB gain antenna provides ¼ wave on 2 m and ½ wave on 70 cm. Also a favorite among scanner buffs and those using handheld wideband receivers. 16 inches.
List $24.95 *Order #2368* **$21.95**

The Diamond SRH77CA is similar, but terminates to an SMA. *Order #0491* **$23.95**

SRH519 / RH519

The flexible Diamond SRH519 2 meter/440 HT antenna is only 8.5" with 3 dBi gain, up to 10 watts. Very effective as a receive antenna for these bands: 150, 300, 450 and 800 MHz. SMA.
List $26.95 *Order #3502* **$22.95**

The Diamond RH519 is the same, but features a BNC rather than an SMA connector.
List $24.95 *Order #3061* **$19.95**

RH789 / SRH789

The Diamond RH789 is an omnidirectional telescoping antenna for 95 MHz to 1100 MHz. It acts as a 1/4 wave from 95 to 300 MHz and a 5/8 wave from 300 to 1100 MHz. It can be used for transmit up to 10 watts. This black, six section antenna, with hinged base, is 7.9 inches retracted and 31.7 inches extended. Gain is 2.15 dBi from 95-300 MHz and 3.2 dBi from 300-1100 MHz. It terminates to a male BNC.
List $34.95 *Order #1204* **$29.95**

The Diamond SRH789 is similar, but terminates to an SMA.
List $34.95 *Order #4845* **$30.95**

SRH999

The Diamond SRH999 is a quad-band HT antenna that is 20 inches tall and weighs only 2 ounces. The SRH999 is a 1/4 wave on 6 and 2 meters, a 1/2 wave on 430 MHz and a 5/8 wave on 1.2 GHz. Power is up to 10 watts. This antenna terminates to a 50 ohm SMA. Also suitable for wideband receivers which feature an SMA connector. It is also optimized for receive on 150, 300, 450 and 900 MHz bands. Flexible, black.
List $59.95 *Order #4463* **$55.95**

RH707

The Diamond RH707 is an HT antenna for 2 meters and 440 MHz. It is 8.5 inches tall and has a unique hinge at the base. This flexible "tilt" antenna is black. Gain is 3 dBi and it can handle up to 10 watts. Terminates to a 50 ohm BNC.
List $29.95 *Order #1873* **$25.95**

SRH805

The Diamond SRH805 is a black, tiny, 1.75 inch tall tri-band HT antenna for 2 meters, 440 MHz and 1.2 GHz. Gain is -2 dBi and it can handle up to 6 watts. Terminates to a 50 ohm SMA. It is also effective as a receive antenna for these bands: 150, 300, 450, 800 and 900 MHz
List $28.95 *Order #3317* **$26.95**

MX Series Duplexers

MX-62M

LPF: 1.6-56 MHz, HPF: 76-450 MHz. Mix: SO239. Port: two 12" coax to PL259s.
List $78.95 *Order #2720* **$69.95**

MX-72D

LPF: 1.6-30, 140-150 MHz, HPF: 400-460 MHz. Mix: SO239. Port: two PL259 plugs.
List $46.95 *Order #2573* **$39.95**

MX-72H

LPF: 1.6-30, 140-150 MHz, HPF: 400-460 MHz. Mix: SO239. Port: two 12" coax to PL259s.
List $49.95 *Order #2571* **$44.95**

MX-72N

LPF: 1.6-30, 140-150 MHz, HPF 400-460 MHz. Mix: SO239. Port: 12" coax to PL259, 12" coax to N.
List $49.95 *Order #2563* **$45.95**

MX-610

LPF: 1.3-30 MHz, HPF: 49-470 MHz. Mix: SO239. Port: two 12" coax to PL259s.
List $69.95 *Order #1704* **$67.95**

MX-2000 TRIPLEXER

LPF: 1.6-160, 110-170 MHz, HPF: 300-950 MHz. Mix: S0239. Port: two 12" coax to PL259s.
List $83.95 *Order #2681* **$79.95**

Mobile Mounting Brackets

K-400

Diamond deluxe adjustable hatchback-trunklid mount ½" hole with *no* connector or cable.
List $39.95 *Order #0978* **$36.95**

K-400C

Deluxe adjustable hatchback-trunklid mount with 6 feet of low-loss cable and connector. SO239.
List $73.95 *Order #2072* **$69.95**

K-400CNMO

Deluxe adjustable hatchback-trunklid mount with 6 feet of low-loss cable and connector. NMO.
List $73.95 *Order #1250* **$68.95**

K-400-3/8C

Deluxe adjustable hatchback-trunklid mount with 6 feet of low-loss cable and connector. 3/8x24.
List $73.95 *Order #4504* **$69.95**

K-540

Black swivel mirror mount ½" hole. No cable.
List $36.95 *Order #0573* **$34.95**

K-540KM

Black swivel mirror mount with 13 feet of RG58AU and PL259. SO-239 type mount.
List $59.95 *Order #1933* **$54.95**

DIAMOND D220R

The **Diamond D220R** mini discone antenna receives solid from 100 to 1600 MHz! It can also be used for transmit on 144, 430, 904, 1200 MHz (under 50 watts). Gain is 2.15dBi (144/904/1200MHz) and 5.5dBi (430MHz) VSWR <1.5:1. This omnidirectional , stainless steel antenna is 28 inches (with a 8.5 inch max. diameter). The mast and mount are not supplied. Weight is 1.2 lbs. The D220R terminates to a 50 ohm *male* UHF [PL259] to fit into PO type mounts, thus making it appropriate for some mobile applications.
List $113.95 *Order #6725* **$103.95**

RHF40

The **Diamond RHF40** is a strange HT antenna for 2 meters and 440 MHz. The top 13 inches of the antenna is completely flexible and can be twisted into almost any shape. The total length of the antenna is 16 inches. It is a ¼ wave on 2 meters and a ½ wave on 70 cm. It can handle up to 10 watts. It is also a capable wideband receive antenna for: 120/150/300/450/800/900 MHz. BNC base.
List $27.95 *Order #0795* **$24.95**
The **SRHF40** is the same but with an SMA base.
List $26.95 *Order #4730* **$23.95**

SRH320A

The **Diamond SRH320A** is a semi-flexible, black, tri-band HT antenna for 2 meters (¼w), 220 (¼w) and 430 MHz (½w). 13.5 inches tall and can handle 10 watts. Has an SMA connector. Optimized for receive on 120, 150, 300, 450 and 900 MHz.
List $46.95 *Order #0454* **$42.95**

RH205

The **Diamond RH205** is not compact or cool looking . It is just a big 47.5 inch 5/8 wave 2 meter telescopic antenna with huge +9.5 dB relative gain! Collapses to a 9 inch ¼ wave. 10W BNC.
List $26.95 *Order #0786* **$22.95**

DIAMOND HFV5

The **Diamond HFV5** five band rotatable trapped dipole has a compact design for installation even in antenna restricted locations. It covers 40, 20, 15, 10 and 6 meters. This lightweight multiband antenna is a good choice for restricted areas or for portable or emergency situations. 150W SSB on 40/20, 200W SSB on 15/10/6m. Requires 1-2.5 inch mast (not included). Length 13 feet. 4.3 lbs.
List $339.00 *Order #6098* **$298.98**

Arrow Antenna

146/437-10WBP

Can you work an amateur satellite with an HT? Yes you can with the **Arrow 146/437-10WBP** satellite antenna! The boom is 3/4 inch aluminum with rounded corners. It is 37 1/2 inches long. On this "split" version the longest piece is 22 inches. Weight is only 20 ounces. Under the handy foam grip, the boom is drilled and tapped for 1/4 x 20 for most camera tripods. It features preset dual gamma match. Your radio has only one BNC connector. The antenna has two. Therefore, this configuration includes the 10 watt duplexer and also has the coax cables to connect your radio to the antenna. This duplexer lets you hear the down link while transmitting.
146/437-10WBP *Order #3049* **$144.95**

Arrow Antenna

OSJ146/440

The **Arrow OSJ146/440** is an open-stub J Pole dual-band vertical covering 143-149 and 430-450 MHz with an SWR of less than 1.5 to 1. This heavy duty 58 inch antenna is made from 3/8 inch solid aluminum and features a heavy-duty angle mounting bracket and stainless steel hardware. It has an SO-239 jack. With U bolt assembly.
OSJ146/440 *Order #4636* **$49.95**

COMET H-422

The **Comet H-422** quad-band is a rotatable trapped dipole with a compact design for installation even in antenna restricted locations. It covers 40, 20, 15 and 10 meters. It can be easily assembled in either a "V" or "straight" configuration. In the "V" shape, good performance is achieved at a minimum of 10 feet above ground! The H-422 has heavy wall tubing to survive up to 67 MPH wind speeds. It has extruded aluminum mounting brackets, stainless steel U-bolts and hardware. The three predrilled radiator lengths are provided for easy tuning. Includes CBL-2000 2kW Balun. VSWR: 1.5:1 or less at center. Wind Load 9.9 square feet. Length: 24.5 feet "V", or 33.8 feet "straight". 12 lbs.
List $399.95 *Order #4778* **$349.95**

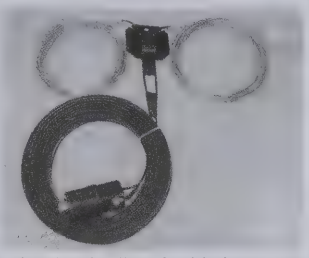
M24M / M24S / M24SJ

The **Comet M-24M** 2 meter / 440 MHz mobile antenna is only 19.5 inches high including the *supplied* magnet mount. With 12.5 feet of RG-58A/U to a PL-259. Gain is 1.7/4.15 dBi. VSWR < 1.5. For up to 80 watts. All black.
List $42.95 *Order #2818* **$37.95**

The **M24S** is the same, but with an SMA plug.
List $42.95 *Order #1020* **$38.95**

The **M24SJ** is the same, but with an SMA-J plug.
List $42.95 *Order #5589* **$39.95**

Princeton G5RV



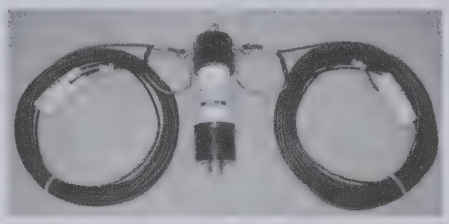
Princeton G5RV quality antennas feature hard drawn 14 gauge wire and UV protected center insulators. It consists of a flat top plus a section of 450 ohm ladder line. In this instance, the ladder line is an active part of the antenna and radiates RF. A broad range automatic tuner such as those made by LDG will provide an excellent match to modern transceivers.

G5RV Classic, 80-10M 1500W PEP, 102 feet.
G5RV *Order #5118* **$59.95**

G5RV Junior, 40-10M, 1500W PEP, 51 feet.
G5RV JR *Order #5153* **$54.95**

G5RV Mini, 20-10M, 1500W PEP, 26 feet.
G5RV MINI *Order #5154* **$52.95**

Princeton WINDOM



The classic **Windom** antenna is an off center feed dipole that, by design, operates on its frequency of resonance and harmonically related frequencies. It is extremely efficient and highly regarded by QRP operators. The addition of a quality tuner ensures a good match to all modern transceivers. The antenna is made with Flex-Weave black jacketed antenna wire and 4:1 balun. Maximum power is 200 watts PEP. The PRI 80WIN is shown.

Model	Band	Length	Order#	Price
PRI 40WIN	40 Meters	67 ft.	*#5692*	**$119.95**
PRI 80WIN	80 Meters	131 ft.	*#6709*	**149.95**
PRI 160WIN	160 Meters	246 ft.	*#5115*	**159.98**

ALPHA DELTA

DX-A

This 40, 80 and 160 meter twin sloper is broadbanded and easy to tune. Length is 115 feet.
DX-A *Order #0378* **$109.95**

DX-B

This sloper is designed for the ham and operates on 160 - 30 meters. Only 60 feet (18.3m) long.
DX-B *Order #1041* **$119.95**

DX-CC

This "No Trap" dipole for 10, 15, 20, 40 and 80 meters is only 82 feet (25m) long.
DX-CC *Order #1031* **$169.95**

DX-DD

For limited space installations this *no trap* shortened dipole for 40 and 80 meters does it in 82 ft.
DX-DD *Order #0675* **$139.95**

DX-EE

This shortened *no trap* dipole for 10, 15, 20 and 40 meters is only 40 feet (12.2m) long.
DX-EE *Order #1905* **$149.95**

DX-20/40/80

Alpha-Delta offers single band dipoles rated at 2 kW. With gray PVC covered 12 g. solid copper wire, DELTA-C center insulator and 40 ft. of rope.

Model	Band	Length	Order#	Price
DX-20	20 Meters	34 feet	*#3452*	**$74.98**
DX-40	40 Meters	67 feet	*#3453*	**$77.95**
DX-80	80 Meters	134 feet	*#3454*	**$77.95**

LARSEN ANTENNAS

NMO-150C

5/8 wave 2 meter mobile antenna. 144 to 148 MHz Gain: 3.0 dB. Mount: NMO. Whip: W490.
List $37.05 *Order #0850* **$29.95**

NMO-150B

Same as above but black coil and W490B whip.
List $41.55 *Order #1792* **$29.95**

NMO-150C HW

1/2 wave 2 meter mobile antenna. 144 to 174 MHz Gain: 2.5 dB. Mount: NMO. Whip: W490.
List $64.75 *Order #0822* **$47.95**

NMO-150B HW

1/2 wave 2 meter mobile antenna. Black coil and W490B whip. 200 watts. 52 inches. Mount: NMO.
List $69.25 *Order #4280* **$49.95**

NMO-440C

5/8 wave 440 mobile antenna. Chrome coil and W154 whip. 200 watts. 31 inches. Mount: NMO.
List $42.25 *Order #1270* **$32.95**

Maldol NS-146

The **Maldol NS-146** is an economy 2 meters HT antenna. Black, 4 inch long with a BNC plug.
List $14.95 *Order #0846* **$11.95**

NMO-2/70B

2 Meter/440 mobile antenna. Gain: 1.6/3.5 dB. W2/70B Black whip. Mount: NMO (Motorola).
List $95.00 *Order #4278* **$69.95**

NMO-2/70C

2 Meter/440 mobile antenna. Gain: 1.6/3.5 dB. W2/70 chrome whip. Mount: NMO.
List $92.75 *Order #2852* **$74.95**

NMO-QC

1/4 wave 2 meter mobile antenna. W200 whip.
List $23.10 *Order #1067* **$16.95**

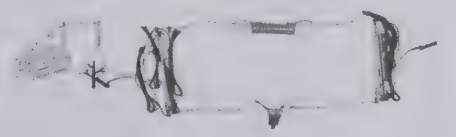
NMO-QB

Black 1/4 wave 2 meter mobile antenna. W200B.
List $24.70 *Order #0764* **$18.95**

NMO-220C

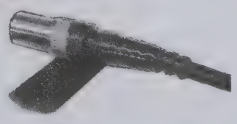
220 MHz 5/8 mobile antenna. Gain: 3.0 dBd. W400 chrome whip. Mount: NMO.
List $53.40 *Order #1266* **$39.95**

OPEK HF-BD1



The **Opek HF-BD1** is an HF folded dipole covering 2 to 30 MHz continuously. Power capacity is 150 watts. This antenna comes with 98 feet of coaxial cable that terminates to a PL-259 connector.
List $199.95 *Order #5905* **$179.95**

COAX CW10



CoaxWrap™ silicone tape is a super flexible tape that does not have any glue or adhesive; it simply sticks to itself. Insulates up to 8000 Volts, will not melt up to 500°F and resists UV damage and weathering. Excellent for wrapping cable, connections and wire to create an air and water tight seal. A roll is 1 inch by 10 feet.
CW10B Black *Order #0488* **$5.95**

COAX-SEAL SEALANT

Please also see **Coax-Seal®** on page 36.

Mounts & Accessories

Order #	Model	Item Description	List Price	Your Price
2182	**BNCMMBNC**	Mag-mount with BNC Connectors both ends	$65.00	**$42.95**
2747	**NMOCAPB**	Rain Cap for NMO Type Mounts - Black	6.20	**4.95**
1274	**NMOK**	3/4" Hole NMO Style Mount	26.40	**19.95**
4282	**NMOMM**	Rectangular Mag-Mount for NMO Antennas	76.95	**49.95**
0467	**NMOMMR**	Round Mag-Mount for NMO Antennas	40.50	**31.95**
1277	**NMOTLP**	Trunk Lip Mount for NMO Antennas	40.75	**35.95**
3629	**POKNOCONN**	3/4" Hole Mount for PO (SO-239) Ant. RG-58	53.90	**35.95**
5332	**PO-MM**	Square Mag-Mount for PO (SO-239) Ant. RG-58	57.20	**39.95**
2781	**SPRING**	Shock Spring Chrome	18.21	**14.95**
1077	**TMB-34**	Stainless Steel "L" Trunk Bracket With 3/4" Hole	7.25	**5.95**
4284	**TMB-34B**	Black Steel "L" Mount Bracket With 3/4" Hole	10.93	**8.95**

HY POWER QRP DIPOLES

Hy Power QRP Dipoles are rated at 150 watts (not 1500!). But 150 watts is more than enough capacity if you are running 100 watts or less, like most hams! The standard models are made with 16 gauge insulated wire and use Hy-Power quality parts including stainless steel hardware, SO-239 type center insulator and two end insulators. They are available in full sized (no coils), shortened or multiband configurations. They are compact and lightweight for portable field operation or permanent base installation. Each antenna is completely assembled and ready to install. Just add your coax cable and rope (please see page 52).

Model	Type	Feet	Order#	Price
FSDP40Q	40M Fullsized	70	*#1655*	$39.95
FSDP30Q	30M Fullsized	48	*#1652*	36.95
FSDP20Q	20M Fullsized	35	*#1640*	34.95
FSDP17Q	17M Fullsized	26	*#1630*	33.95
FSDP15Q	15M Fullsized	23	*#1613*	32.95
FSDP10Q	10M Fullsized	17	*#1601*	29.95
FSDP 6Q	6M Fullsized	10	*#1600*	28.95
LD4030Q	40M Shortened	30	*#1595*	43.95
LD3017Q	30M Shortened	17	*#1587*	42.95
LD2020Q	20M Shortened	20	*#1572*	38.95
LD2012Q	20M Very Short	12	*#4625*	38.95
LD1512Q	15M Very Short	12	*#4626*	38.95
2B2040LQ	20/40M Multi	44	*#1570*	62.95
2B1040Q	10/40M Multi	31	*#1568*	51.95
2B1520Q	15/20M Multi	29	*#1535*	47.95

HY POWER DIPOLES

This series of full-sized, full power dipoles made by Hy Power feature 12 gauge UV insulated wire and use stainless steel electrical hardware, SO-239 type center insulator and two end insulators. They are available in full sized (no coils), shortened or multiband configurations. Completely assembled - just add your coax cable and rope.

Model	Type	Feet	Order#	Price
FSDP160	160M Fullsized	268	*#1285*	$79.95
FSDP 80	80M Fullsized	138	*#1292*	54.95
FSDP 60	60M Fullsized	90	*#1293*	44.95
FSDP 40	40M Fullsized	70	*#1299*	39.95
FSDP 30	30M Fullsized	48	*#1372*	36.95
FSDP 20	20M Fullsized	35	*#1441*	34.95
FSDP 17	17M Fullsized	26	*#1439*	33.95
FSDP 15	15M Fullsized	23	*#1429*	32.95
FSDP 10	10M Fullsized	17	*#1383*	29.95
FSDP 6	6M Fullsized	10	*#1378*	29.95
LD4041	40M Loaded	41	*#1282*	52.95
2B2040L	20/40M Multi	44	*#1279*	68.95
2B1730L	17/30M Multi	31	*#1272*	54.95
TRI1020	10/15/20M "	34	*#1259*	69.95
TRIWARC	12/17/30M "	46	*#1251*	79.95

HY POWER OCF

The **Hy Power Off Center Fed** antennas are very efficient and effective multi-band antennas. They feature stainless steel hardware, #12 UV insulated wire and GU4-HF-5KW-A Guanella 4:1 current baluns rated at 5000 watts. Completely assembled - just add your coax cable and rope.

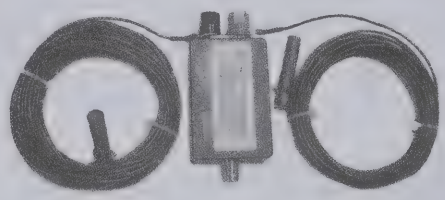
Model	Bands	Feet	Order#	Price
OCF80	80/40/20/17/12/10/6	135	*#1164*	$129.95
OCF40	40/20/10/6	66	*#0946*	114.95

HY POWER QRP MICRO

Hy Power QRP *Micro* Dipoles are ready to hit the trail with you. These are full length dipoles, but are constructed to fit in your pocket! The center connection is a banana jack to **BNC** adaptor. The compact end insulators are made from 3/8" round fiberglass. These antennas are not meant to be used in a permanent installation. Absolutely great for back packers. They can handle up to 250 watts. FSDP15QM shown above.

Model	Type	Feet	Order#	Price
FSDP40QM	40M Fullsized	70	*#6544*	$41.95
FSDP30QM	30M Fullsized	48	*#6545*	37.95
FSDP20QM	20M Fullsized	35	*#6546*	35.95
FSDP17QM	17M Fullsized	26	*#6547*	34.95
FSDP15QM	15M Fullsized	23	*#6548*	33.95
FSDP12QM	12M Fullsized	20	*#6549*	30.95
FSDP10QM	10M Fullsized	17	*#6550*	29.95
FSDP 6QM	6M Fullsized	10	*#6551*	29.95

HY POWER OCF-40QM



The **Hy Power OCF-40QM** QRP Micro version will fit in a large pocket. It is great for travel and backpacking. Rated at 250 watts. It uses stealthy #18 stranded insulated wire and a BNC connection to your coaxial cable. It features the GU4-HF-250-M balun using the same cores as the standard QRP OCF baluns, but in a smaller 3" x 2" x 1" enclosure. The OCF 40QM is 66 feet long with one leg at 23 feet and the other at 43 feet.

Model	Bands	Feet	Order#	Price
OCF40QM	40/20/10/6	66	*#6543*	$99.95

HY POWER BALUNS

Visit the Universal website to learn about our selection of quality Hy Power baluns. ([1]3500 on 6)

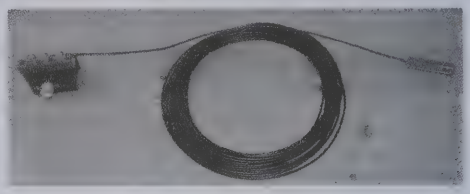
Model	Bands	Watts	Order#	Price
BL 6-160-5KWB	6-160	5000	*#6552*	$55.95
BL10-160-5KW	10-160	5000	*#5471*	45.95
BLHF-250	6-160	250	*#1466*	32.95
GU4-HF-1KW	6-160	1000	*#5467*	49.95
GU4-HF-5KWA	6-160	5000	*#5465*	83.95
GU4-HF-5KWS	6-160	5000	*#5466*	82.95
GU4-HF-250	6-160	250	*#5468*	34.95
GU6-160-5KW	6-160	5000[1]	*#5469*	65.95

Arrow Antenna GP52

The **Arrow GP52** is a quarter wave, 6 meter vertical antenna (50-54 MHz) with a 4 MHz bandwidth with an SWR of <2 to 1. With stainless steel hardware, SO-239 jack and U bolt assembly.

GP52 *Order #0206* $52.95

LNR PRECISION ENDFEDZ® END-FEDZ



The **LNR Precision End-Fedz** are full length half wave dipoles with the coax connector at one end of the dipole, where it is most needed. These antennas can be mounted horizontally, vertically or as a sloper. End insulators are supplied. All hardware is stainless and the SO239 connector is silver-Teflon. The radiator material is a tough, polyethylene jacketed, flexible #18 copper wire. Power rating is 100 watts, except 200W on #4965 & #2836 and 25W *#1952*. The all black construction makes them difficult to see. Great for portable, Field Day or stealth applications. [1]@2.1 VSWR.

Band	Length	1.5:1 BW	Order#	Price
EF-80	135 Feet	130 kHz	*#5699*	$124.95
EF-40	66.0 Feet	255 kHz[1]	*#4965*	$69.95
EF-30	46.0 Feet	200 kHz	*#2836*	$64.95
EF-20	33.0 Feet	300 kHz	*#4456*	$57.95
EF-17	28.0 Feet	350 kHz	*#4457*	$57.95
EF-15	22.0 Feet	400 kHz	*#4458*	$57.95
EF-12	17.5 Feet	500 kHz	*#4459*	$53.95
EF-10	16.5 Feet	600 kHz	*#4460*	$52.95
EF- 6	9.2 Feet	1200 kHz	*#4461*	$51.95
EF-10/20/40	39" [25 watts]		*#1952*	$74.95

OPEK® VUG144 VUG270

The **Opek VUG-144** is a through-the-glass antenna for 2 meters with a black, field-tunable 27.5 inch whip with 14 feet of RG58 coax terminating to a PL259. Gain 2.5 dB VSWR <1.5:1, 50 watts.
List $28.62 *Order #5070* $18.95

The **Opek VUG-270** is 2M/440 through-the-glass antenna with a black, field-tunable 26 inch stainless steel whip with 14 feet of RG58 coax terminating to a PL259. Gain is 2.6/4.0 dB. VSWR < 1.5:1 rated 50 watts. Covers 144-148 and 440-450 MHz.
List $32.36 *Order #5079* $23.95

OPEK®

HVT-400B

The **Opek HVT-400B** is the economical solution to HF/VHF mobile operation. To change the band of operation you simply move the jumper. This antenna can be set to operate on any one of these bands: 80, 40, 20, 15, 10, 6 or 2 meters! Power capacity is 120 watts. 70 inches. The base of the antenna is a male PL259 and requires a PO mount. Does not include the mount or coax.
List $105.86 *Order #5066* $69.95

HVT-600

The **Opek HVT-600** (not shown) is similar to the HVT-400B, but handles 200 watts.
List $112.80 *Order #5578* $79.95

COMPACtenna 2M/220/440

The **COMPACtenna 2M/220/440** is only 7.5 inches tall yet covers the three most popular VHF/UHF bands! Coverage is an amazing: 144-148, 219-225 and 420-450 MHz. The small rugged antenna provides high performance as a result of its unique electric/magnetic field diversity design. The patented design uses the latest science to provide revolutionary performance in NLOS (Non-Line-Of-Sight) obstructed environments such as behind buildings, in garages, behind other vehicles and in valleys. Nom. gain +3 dBi. VSWR: <2:1. 150 watts. NMO base.

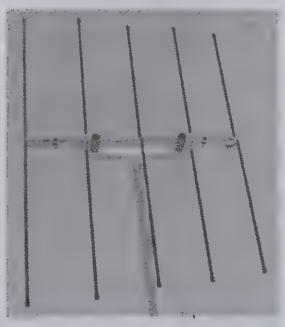
2M/220/440 *Order #0842* **$99.95**

COMPACtenna 27-450

The **COMPACtenna 27-450** mobile antenna offers superior performance on *five* popular amateur bands: 10, 6 and 2 meters plus 220 and 440 MHz and CB. Power capacity is 150 watts. The antenna is only 2 feet tall (with 4" dia. coil). Gain is +3 dBi nominal. (V)SWR nominal: < 2:1 50-54 MHz, 144-148 MHz, 219-225 MHz 420-450 MHz < 2:5 27-27.4 MHz and 28.3-28.5 MHz. This antenna requires a sturdy 3/8"-24 mount not included.

27-450 *Order #6801* **$149.95**

2M/440L5



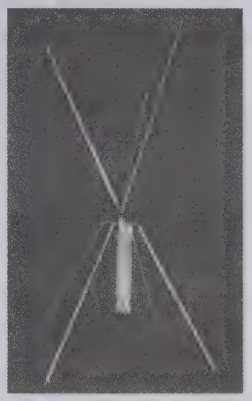
The **Elk Antenna 2M/440L5** is a 2 meter and 440 log periodic. Gain is 6.8 dBd (8.9 dBi) and 7 dBd (9 dBi). It features +20 dB front to back ratio. This antenna has a 24 inch corrosion resistant aluminum alloy boom and anodized aluminum elements. Hardware is stainless steel. It can handle 200 watts on 2 meters and 100 watts on 440 MHz. 1:1 SWR at 144-148 MHz and 430-450 MHz. Assembly and disassembly is fast thanks to color-coded elements that screw onto studs on the color-coded boom! Two bands are supported from one SO239 coax fitting. No duplexer is required. Just twist the mounting assembly to change from vertical to horizontal polarity. Only 1.3 lbs. Important Note: This antenna must be supported by a nonmetallic material. It is set up to receive a 1 inch PVC for the mast support (not supplied). Mast shown in photo is *not* supplied.

2M/440L5 *Order #4723* **$119.95**

The **ElkBag** is heavy-duty black nylon carry bag.

ElkBag *Order #4737* **$24.95**

SUPER-M CLASSIC



The **MP Antenna Super-M Classic Base** was designed for amateur radio and scanner applications and seamlessly covers a receive frequency range of 25 MHz to 1.3 GHz. It offers unequaled transceive performance of the entire 2-Meter, 220 MHz and 440 MHz amateur bands (up to 200 watts). Multi-Polarized technology with MP Antenna design and production standards make the Super-M Classic™ a superior performer, especially on weak or obstructed signals. This antenna provides impressive gain and low VSWR throughout its entire operating range. Terminates to a female N jack.

08ANT0863 *Order #0307* **$114.95**

SUPER-M ULTRA

MP Antenna Super-M Ultra™ Base was designed for ham, scanner and 2-way Govt./Commercial communications and seamlessly receives from 25 MHz to 6 GHz and transmit range of 88 MHz to 6 GHz (200W <512 MHz and 100W >512 MHz). Multi-polarized or M-POL™ technology provides unequalled communication in obstructed, non-line-of-sight environments. This patented technology results in a stronger, more stable, three dimensional signal. 40 inches tall and 27 inches wide, 2.1 lbs. Mounts on 1.25 to 2.0 inch mast (not supplied) with supplied stainless steel clamps. N type jack.

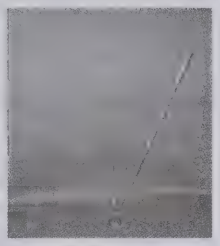
08ANT0861 *Order #1628* **$189.95**

SUPER-M ULTRA MOBILE

The **MP Antenna Super-M Ultra Mobile** antenna provides high performance in the 25 to 6000 MHz range. It may be used for transceive from 120 to 6000 MHz. Power capacity is 200 watts below 512 MHz and 100 watts above 512 MHz. The unique design is dual polarized to provide a big signal at the horizon and out of the valley with reduced flutter and picket-fencing. The unique design provides impressive gain and low VSWR. Requires an NMO mount and coax cable (neither included).

08ANT0860 *Order #1304* **$109.95**

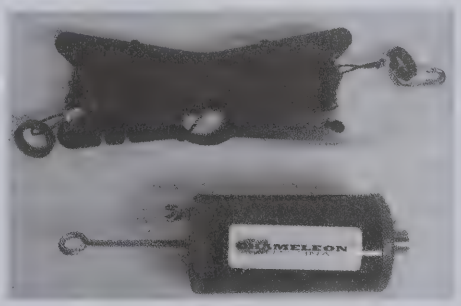
SUPER-M CLASSIC MOBILE



The **MP Antenna Super-M Classic Mobile** may have an unusual appearance, but it is a versatile VHF-UHF antenna providing high performance from 25 to 1300 MHz. It may be used for transceive in the entire 2-meter, 220, and 440 MHz amateur bands. Power capacity is 200 watts and tuning is not necessary. The unique design is dual polarized to provide a big signal at the horizon and out of the valley with reduced flutter and *picket-fencing*. The three elements are between 15 and 20 inches. The base requires an NMO mount. Mount and coax cable are not included.

08ANT0865 *Order #1171* **$54.95**

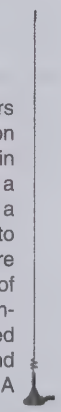
EMCOMM II



The **Chameleon EMCOMM II** antenna system covers 6 to 160 meters 500W SSB or 250W CW. The integral broadband impedance matching network (5:1 transformer) allows broadband antenna tuning. Performs well in a sloper or an inverted "V" configuration. This 60 foot antenna requires an external tuner. SO-239 input.

EMCOMM II *Order #0991* **$109.95**

MFJ-1722 MFJ-1722S



The **MFJ-1722** *Ultralite™* antenna covers the 2 meter and 440 MHz with up to 50W on 2 meters and 25W on 440. SWR < 1.5. Gain is 2.5/3.0 dB providing significant gain over a rubber duck. This 2 ounce antenna has a twenty inch stainless steel whip attached to a tiny but powerful 1 1/8 inch diameter rare earth magnet. The base includes 9 feet of thin, flexible RG-174U coax with a BNC connector that easily snakes through a closed window or door. The whip easily bends and curves to fit any briefcase or glove box. A free BNC to PL259 adapter is included.

MFJ-1722 *Order #5433* **$14.95**

The **MFJ-1722S** is the same antenna, but there is a SMA plug at the end of the coax rather than a BNC. Includes a free SMA to PL-259 adapter.

MFJ-1722S *Order #5434* **$14.95**

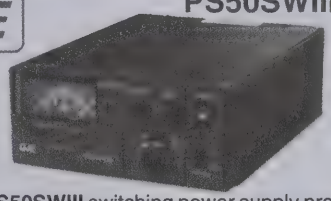
QJE

PS30SWV

The **QJE PS30SWV** switching power supply provides 13.8 VDC at 25 Amps continuous, 30 Amps surge. The output voltage is adjustable from 9 to 15 VDC. It features a front panel lighter plug for low current (10A) accessories. There are also red and black snap terminals on the front panel for very low power accessories (3A). Red and black terminals (30A) and a quiet fan are on the rear panel. The digital panel meter can simultaneously display voltage and current. There is a Noise Off-Set Control that can be adjusted to eliminate pulse noise from the power supply. It has short-circuit, over-current and over-temperature protection, plus a user replaceable fuse (8A). 7.5 x 2.75 x 7.2 inches 5.1 lbs.
List $149.95 *Order #4912* **$109.95**

QJE

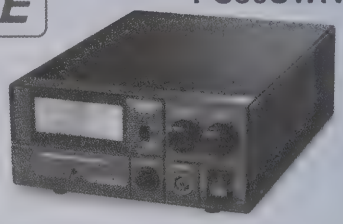
PS50SWIII



The **QJE PS50SWIII** switching power supply provides 48 Amps continuous, 50 Amps surge. A front panel switch selects fixed 13.8 VDC or adjustable 9 to 15 VDC. It features a front panel lighter plug for low current (10A) accessories. Red and black terminals (50A), and a quiet fan are on the rear panel. The analog panel meter can display voltage or current. There is a Noise Off-Set Control that can be adjusted to eliminate pulse noise from the power supply. It has short-circuit, over-current and over-temperature protection, plus a user replaceable fuse. Output voltage regulation is less than 2% variance. Input voltage is 110 VAC 60Hz. 7.75 x 3.4 x 11.1 inches 5.6 lbs.
List $169.95 *Order #1531* **$149.95**

QJE

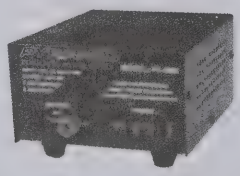
PS30SWIV



The **QJE PS30SWIV** switching power supply provides 13.8 VDC at 20 Amps continuous, 30 Amps surge. The output voltage may be selected fixed at 13.8 VDC or adjustable from 9 to 15 VDC. Red and black (30A) terminals are on the rear panel. Low Amperage tip jacks are on the front panel. The LCD digital panel meter *simultaneously* displays voltage *and* current. There is a Noise Off-Set control that can be adjusted to eliminate pulse noise from the power supply. Ripple is less than 100mV p-p at load. Input is 110/220 VAC selectable. 6.1 x 2.8 x 8.1" 3.3 lbs.
List $119.95 *Order #5851* **$88.98**

PYRAMID

PS-8KX



The **Pyramid PS-4KX** regulated linear power supply provides 13.8 VDC at 6 Amps continuous or 8 Amps surge. 5 x 3 x 7.5 inches.
List $85.00 *Order #5366* **$44.95**

JETSTREAM

JTMINI15

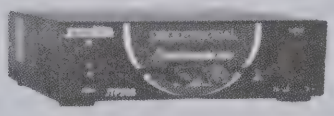
The **Jetstream JTMINI-15** switching power supply delivers 13.8 VDC at 12 Amps (15A surge). It has a five-way binding post on the front panel and has a warning LED. The rear panel has the power switch and fan. The rubber feet can be removed and four screws are provided for permanent mounting. Input is 110 VAC. Only 3.75 x 2.25 x 7.5".
Order #3311 **$59.95**

JTPS30LCD

The **Jetstream JTPS30LCD** adjustable power supply provides from 9 to 15 VDC at 25 Amps (30 Amps surge). Meter displays volts or Amps. Front panel has 3A accessory terminals and 10A cigarette jack. Rear panel has 30 Amp posts, fan and a voltage Fix/Adjust switch. Input is 110/220 VAC switchable. 7.5 x 2.75 x 7 inches.
List $119.00 *Order #6511* **$99.95**

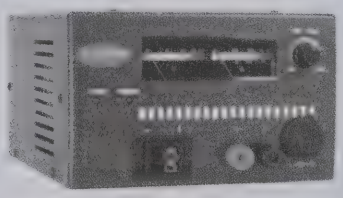
JETSTREAM

JTPS28



The **Jetstream JTPS28** power supply provides 13.8 VDC at 25 Amps (28 Amps surge). It features five-way binding posts on the front panel and a lighter plug for low current (7A) accessories. It has over-voltage protection, over-current protection and fan with Fan On LED. Input is 110/220 VAC switchable. 7 x 2.25 x 8 inches.
Order #5226 **$84.95**

JTPS35BCMA

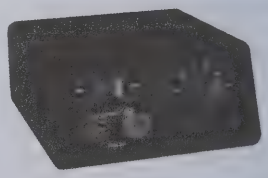


The **Jetstream JTPS35BCMA** adjustable power supply provides from 9 to 15 VDC at 27 Amps (30 Amps surge). There is a separate meter for voltage and one for Amperage. It features five-way binding posts on the front panel and a lighter plug and spring loaded terminals for low current (7A) accessories and has Powerpole® jacks. It has over-voltage and over-current protection plus a quiet auto-on internal fan with warning LED. The rear panel has binding posts for battery backup (battery not supplied) and another set of Powerpole® jacks. Input is 110/220 VAC. 7 x 8.75 x 4.5".
Order #5344 **$139.95**

Powerpole® is a registered trademark of Anderson Power Products, Inc.

JTPS28M

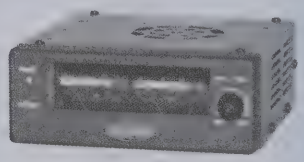
28-2011



The **PE 28-2201** regulated DC power variable voltage, switching power supply that provides up to 2 Amps of current at selectable voltages of: 3, 5, 6, 7.5, 9 and 12 VDC. Input voltage is 90-220 VAC. The fuse is accessible from the rear panel. With 4.5 foot cord. The on/off rocker switch is illuminated. Plastic case 5 x 2.25 x 6.5"
Order #2291 **$24.95**

JETSTREAM

JTPS14BCM

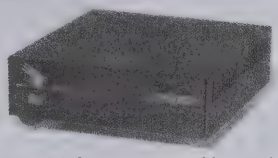


The **Jetstream JTPS14BCM** adjustable switching power supply provides from 9 to 15 VDC at 12 Amps (14 Amps surge). There is a separate meter for voltage and one for Amperage. It features binding posts on the rear panel for voltage out and binding posts for battery backup (battery not supplied). It has over-voltage protection, over-current protection and quiet auto-on internal fan with warning LED. Input is 115/230 VAC switchable.
List $79.00 *Order #2908* **$69.95**

The **Jetstream JTPS28M** adjustable power supply provides from 9 to 15 VDC at 25 Amps (28 Amps surge). There is a separate meter for voltage and one for Amperage. It features five-way binding posts on the front panel and a lighter plug for low current (7A) accessories. It has over-voltage protection, over-current protection and quiet internal fan with *Fan On* LED. Input is 110/220 VAC switchable. 5.75 x 4.5 x 7 inches.
Order #3440 **$99.95**

samlexamerica

SEC-1223



The **Samlex SEC-1223** switching power supply provides 13.8 VDC at 23 Amps continuous or 24 Amps surge. Housed in a heavy metal case with non-skid rubber feet and has an illuminated on-off switch, removable AC cord and cooling fan. Output is to two screw type binding posts on the back panel. It features current limiting, short circuit and over voltage protection. Output ripple and noise is <15 Mv RMS. 7.2 x 8.7 x 2.2 inches 3.3 lbs. UL listed.
List $148.20 *Order #2423* **$126.95**

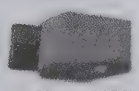
The **Samlex SEC-1223BM** is the same but with the BBM-1225 battery backup module installed.
List $186.20 *Order #3382* **$149.95**

The **SEC-1212** is similar to the SEC-1223, but 10 Amps continuous and 12 Amps peak. UL listed.
List $119.70 *Order #3747* **$92.95**

KENWOOD PS-60

The **Kenwood PS-60** linear power supply provides 13.8 VDC at 22.5 Amps. Input is 100-240 VAC 50/60 Hz. The rear panel has a fan and high Amperage terminals. This quality, low noise supply matches the TS-590S. 7 x 4 x 8.25" 5.5 lbs.
List $469.00 *Order #3385* **$429.95**

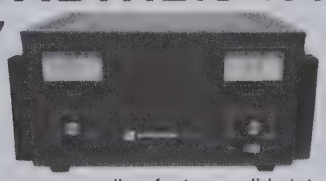
NANO USB



The **Hardened Power Systems Nano USB** drivers gives you 3 Amps of USB power output from 6-26 VDC Powerpole®® input. In four colors.

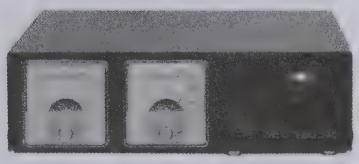
BK Black	*Order #6530*	**$19.95**
RD Red	*Order #6531*	**$19.95**
GR Gray	*Order #6533*	**$19.95**

ASTRON VS-50M



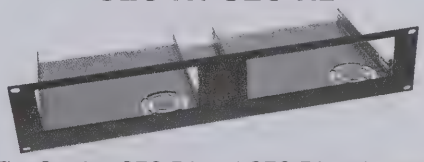
Astron power supplies feature solid-state electronic regulation, fold back current limiting for protection from excessive current and shorted output. Crowbar over voltage protection is also provided on all models except the RS-4A. These high-quality power supplies are manufactured in the U.S. and carry a one year limited warranty. Models ending in "M" feature a meter or meters. Models starting with "VS" are variable 2 to 15 volts. [1]Amp ratings for variable supplies are rated at 13.8 VDC. Models starting with "RM" or "SRM" are for 19" rack mounting. "SRM" are switching rack mount power supplies. Models ending in "-2" are dual power supplies.

samlexamerica SEC-1235M



The **Samlex SEC-1235M** is housed in a heavy metal case with nonskid rubber feet and has an illuminated on-off switch, removable AC cord and cooling fan. Output is 13.8 VDC 35 Amps surge, 30 Amps continuous, to two screw type binding posts on the back panel. This power supply features current limiting, short circuit protection and over-voltage protection. The SEC-1235M model features a volt meter and Amp meter, plus has a temperature controlled fan on the bottom. Two solder terminals are thoughtfully provided. UL listed. 110 VAC input. 8.4 x 2.5 x 7.3" 3.4 lbs.
List $169.10 *Order #1235* **$129.95**

SEC-R1 SEC-R2



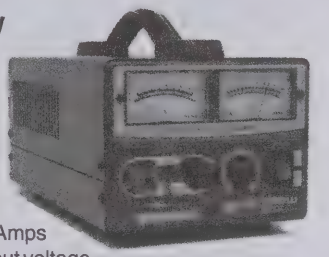
The **Samlex SEC-R1** and **SEC-R2** rack mount plates allow for mounting the Samlex SEC-series power supplies into a 19 inch rack. Available in a single or dual (shown) power supply configuration.

SEC-R1	Single	*Order #1339*	**$37.95**
SEC-R2	Dual	*Order #6048*	**$49.95**

SS-505

The **Daiwa SS-505** regulated, variable switching power supply provides 5 to 15 VDC at 50 Amps continuous (55 Amp surge). Input voltage is 90-123 VAC 50/60 Hz. Less than 1.5% voltage fluctuation and less than 5 mV ripple voltage. Output to binding posts on the rear panel. Low Amperage spring loaded terminals and cigarette lighter jack are on the front. With carry handle and automatic fan. Only 9 x 5 x 12.5 inches 8.4 lbs.
List $399.00 *Order #0944* **$389.95**

SS-330W

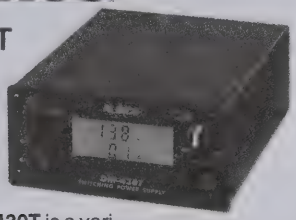


The **Daiwa SS-330W** regulated, variable switching power supply provides 5 to 15 VDC at 30 Amps continuous. Input voltage is 110 VAC 50/60 Hz. Less than 1.5% voltage fluctuation and less than 10 mV ripple voltage. It features output to binding posts on the front panel and dual meters. Handle on the top and a fan on back. 5.2 x 4 x 10.5 inches
List $184.95 *Order #3344* **$169.95**

Order #	Model	Continuous Duty Amps	ICS Amps	Size(in) HxWxD	Shipping Weight (lbs.)	List Price	Your Price
2461	**RM-35M**	25	35	5.25 x 19 x 13	27	$356.95	**$269.95**
0779	**RM-50M**	37	50	5.25 x 19 x 13	50	412.95	**339.95**
1208	**RM-60M**	50	55	7 x 19 x 13	60	541.95	**439.95**
2505	**RS- 4A**	3	4	3¾ x 6½ x 9	7	63.95	**52.95**
2506	**RS- 7A**	5	7	3¾ x 6½ x 9	9	84.95	**69.95**
2507	**RS-12A**	9	12	4½ x 8 x 9	13	111.95	**92.95**
2508	**RS-20A**	16	20	5 x 9 x 10½	18	138.95	**109.95**
2510	**RS-20M**	16	20	5 x 9 x 10½	18	170.95	**139.95**
2509	**RS-35A**	25	35	5 x 11 x 11	27	225.95	**179.95**
2511	**RS-35M**	25	35	5 x 11 x 11	27	252.95	**199.95**
1815	**RS-50A**	37	50	6 x 13¾ x 11	46	335.95	**269.95**
1045	**RS-50M**	37	50	6 x 13¾ x 11	46	356.95	**309.95**
2528	**RS-70M**	57	70	6 x 13¾ x 12¼	53	430.95	**349.95**
6739	**SL-11R**	7	11	3 x 7¾ x 9¾	16	109.95	**89.95**
1043	**SS-25**	20	25	3 x 7 x 9½	5	139.95	**119.95**
0541	**SS-25M**	20	25	3 x 7 x 9½	5	167.95	**139.95**
1419	**SS-30**	25	30	3¾ x 7 x 9¾	6	151.75	**129.95**
0502	**SS-30M**	25	30	3¾ x 7 x 9¾	6	179.65	**149.95**
0039	**VS-20ML**	16[1]	20[1]	5 x 9 x 10½	20	193.95	**154.95**
0756	**VS-35M**	25[1]	35[1]	5 x 11 x 11	29	269.95	**209.95**
2994	**VS-50M**	37[1]	50[1]	6 x 13¾ x 11	46	383.95	**309.95**
2826	**VS-70M**	57[1]	70[1]	6 x 13¾ x 13	48	445.95	**349.95**
4155	**SRM-25**	20	25	3.5 x 19 x 9.4	7	162.60	**129.95**
4156	**SRM-25M**	20	25	3.5 x 19 x 9.4	7	188.95	**159.95**
4153	**SRM-30**	25	30	3.5 x 19 x 9.4	7	170.35	**149.95**
4154	**SRM-30M**	25	30	3.5 x 19 x 9.4	7	201.35	**174.95**
4159	**SRM-25-2**	20/20	25/25	3.5 x 19 x 9.4	11	306.75	**249.95**
4157	**SRM-25M-2**	20/20	25/25	3.5 x 19 x 9.4	11	345.34	**299.95**
4160	**SRM-30-2**	25/25	30/30	3.5 x 19 x 9.4	11	326.90	**269.95**
4158	**SRM-30M-2**	25/25	30/30	3.5 x 19 x 9.4	11	385.80	**329.95**

ALINCO

DM-430T



The **Alinco DM-430T** is a variable voltage, switching power supply that delivers up to 30 Amps. A front panel switch selects fixed 13.8 VDC or variable 5 to 15 VDC. It has a short circuit protection, a current-limiting system and temperature protection. A large back-lit LCD Amp/V meter displays the status of the power supply. Output voltage regulation is <2% and ripple voltage is <80 mVp-p. There are two Powerpole® ports on the front panel. Rear panel features large binding posts and a fan. 120 VAC input. 4.93 x 2.37 x 6.3 inches 3.53 lbs.

List $144.95 *Order #2430* **$139.95**

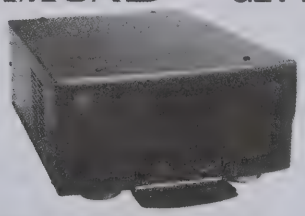
ALINCO

DM-30T

The **Alinco DM-30T** adjustable power supply provides from 9 to 15 VDC at 20 Amps (30 Amps surge). The LCD meter displays voltage *and* Amperage. It features quick connectors on the front panel for low current (5A) Powerpole®. The rear panel has high Amperage posts (30A), and fan. A front panel switch selects 13.8 VDC or variable voltage. Has over-voltage protection, overcurrent protection and over temperature protection. Input is 110 VAC. 6.1 x 2.8 x 8.1 inches.

List $149.95 *Order #6802* **$129.95**

DIAMOND GZV4000



The **Diamond GZV4000** regulated, variable switching power supply provides 5 to 15 VDC at 40 Amps continuous. Input voltage is 100-140 VAC. < 8 mV ripple voltage. The backlit meter can be switched to show Amps or volts. A front panel access door hinges down to allow connection to the low Amperage spring loaded clips or cigarette lighter jack. Has LEDs for power and overload conditions plus variable speed fan. With built-in 8 ohm speaker making it great for your service bench. 8.25 x 4.5 x 13 inches 8 lbs.

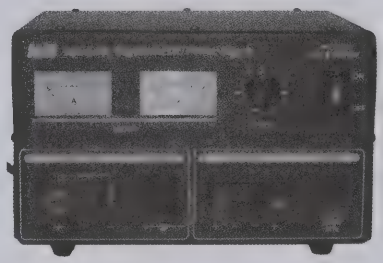
List $189.95 *Order #3195* **$184.95**

MFJ-4245MV

The **MFJ-4245MV** regulated switching power supply provides 9 to 15 VDC at 45 Amps surge or 40 Amps continuous. Input is 110 VAC 47-62 Hz or 220 VAC 47-63 Hz switchable. The front panel has: five way binding posts, cigarette lighter socket and two quick disconnect connectors. Lit meters show voltage and Amps. Includes over voltage and over current protection. Meets FCC Class B. 7.5 x 4.75 x 9 inches 6 lbs. One year limited mfg. warranty.

List $149.95 *Order #2105* **$139.95**

MFJ-4035MV



The **MFJ-4035MV** regulated power supply provides 1 to 14 VDC at 35 Amps surge or 30 Amps continuous. Input is 110 VAC. The MFJ-4035MV features an easy access front panel with three-way output: five way binding posts, cigarette lighter socket and two quick disconnect connectors. The dual meters (non-illuminated) show voltage and Amps. Built-in circuit protection. A fan keeps the supply running cool. AC line fused from the front panel. 9.5 x 6.1 x 9.7 in. 19.2 lbs.

List $149.95 *Order #3286* **$144.95**

DIAMOND GZV6000

The **Diamond GZV6000** regulated, variable switching power supply provides 1 to 15 VDC at 60 Amps continuous. Input voltage is 100-140 VAC. <8 mV ripple voltage. The back-lit meter can be switched to show Amps or volts. A front panel access door allows connection to the 6 Amp spring loaded clips or cigarette lighter jack. The rear panel has high Amperage terminals, 3.5 mm speaker input jack and fuse. LEDs for power and overload conditions. With quiet variable speed fan and built-in 8 ohm, 5W service speaker. 8.3 x 4.5 x 15" 13 lbs.

List $399.95 *Order #3536* **$359.95**

MFJ-4125

The **MFJ-4125** *MightyLite* regulated switching power supply provides 13.8 VDC at 25 Amps surge or 22 Amps continuous and features five way binding posts on the front. With over voltage and over current protection. Green power LED. A whisper fan keeps things cool. Switchable input: 110/220 VAC 47-62 Hz. 5.5 x 2.5 x 5.75" 3.75 lbs.

List $84.95 *Order #1417* **$79.95**

MFJ-4125P

This **P** model is similar, but adds 2-pair of Anderson Powerpole® connections to the front panel.

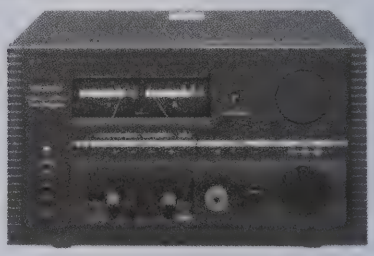
List $94.95 *Order #4024* **$88.95**

MFJ-4230MV

The **MFJ-4230MV** switching power supply provides 4 to 16 VDC at 30 Amps surge or 25 Amps continuous. Input is 110/220 VAC 47-62 Hz switchable. The meter can display Amps or Volts. DC output is provided via five-way binding posts on the back panel. Quiet fan. 5 x 2.5 x 6" 3 lbs.

List $89.95 *Order #6401* **$84.95**

YAESU FP-1030A



The **Yaesu FP-1030A** power supply provides 13.8 VDC at 25 Amps continuous or 30 Amps surge. Input is 120 VAC 60 Hz. Dual meters showing voltage and Amperage are featured along with a red LED for overload indication. The front panel includes: 25 Amp high power lugs, 10 Amp cigarette lighter jack and 6 Amps spring loaded terminals. 9.8 x 5.9 x 9.5". Grey. 20.9 lbs (9.5 kg).

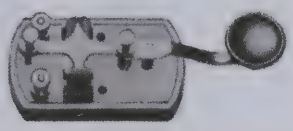
List $345.22 *Order #3640* **$269.95**

YAESU FP-1023

The **Yaesu FP-1023** switching power supply provides 13.8 VDC at 23 Amps. Input is 120 VAC 60 Hz. It has illuminated on/off switch, a temperature controlled bottom venting cooling fan, removable AC cord and five-way binding posts on the rear panel. 7 x 2.2 x 8.25 inches 3.5 lbs.

List $216.88 *Order #3631* **$169.95**

K-1R



The **Ameco K-1R** is an economical practice code key with a black plastic base.

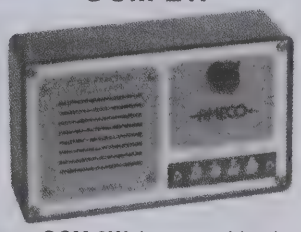
K-1R *Order #3021* **$11.95**

UKB black aluminum base for K-1R with screws.

UKB *Order #5301* **$14.98**

✔ Keys and paddles require cable not included.

OCM-2W



The **Ameco OCM-2W** is a combination code practice oscillator and CW monitor. It has a built-in speaker plus terminal connectors for headphones. A 9 volt battery and code key are required.

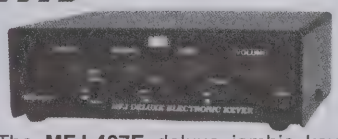
OCM-2W *Order #0545* **$34.95**

BY-2

Bencher paddles include gold-plated solid silver contact points.

Order#	Model	Item Description	List Price	Your Price
0458	**BY-1**	Iambic Black	$171.95	**$159.95**
0459	**BY-2**	Iambic Chrome Plated	211.95	**189.95**
3218	**RJ-1**	Hand Key Black	159.95	**139.95**
3219	**RJ-2**	Hand Key Chrome Plate	189.95	**169.95**
0006	**ST-1**	Straight Black	146.95	**134.95**
0559	**ST-2**	Straight Chrome Plated	176.95	**159.95**
5930	**DCBY**	Dust cover BY1/2, ST1/2	34.95	**34.95**
6839	**DCRJ**	Dust cover RJ1/2	34.95	**34.95**

MFJ-407E



The **MFJ-407E** deluxe iambic keyer helps you send perfect code. You get controls for speed, weight, tone and volume plus switches for semi-auto and tune. With sidetone speaker and A/B sending style. Keys solid state and tube transmitters. Requires 9 volt battery (not included) or MFJ-1312D AC adapter. 5.75 x 1.75 x 4.75"

List $99.95 *Order #5671* **$89.95**

MFJ-422D

This deluxe keyer fits directly over the supplied Bencher BY-1 paddle for a compact configuration. It has adjustable weight, tone, speed and volume. Requires 9V battery or MFJ-1312D *#2433* $15.95.

List $269.95 *Order #0804* **$219.98**

MFJ-557

Deluxe code practice oscillator with straight key mounted on a heavy steel base. Has volume and tone control. Needs a 9V battery or MFJ-1312D.

List $39.95 *Order #0555* **$39.95**

MFJ-5166

The **MFJ-5166** is a cable to connect your paddle to a keyer (or transceiver with keyer). It terminates to a 3 conductor mini plug. MFJ also includes a mini to 1/4 inch adapter.

Order #6698 **$11.95**

MFJ-418

Learn Morse code anywhere, any time with the MFJ Pocket Morse Code Tutor. The LCD lets you see the code as it is generated. The **MFJ-418** is adjustable from 3 to 55 WPM with normal or Farnsworth spacing. Only 3.75 x 2.25 x 1". Requires a 9 volt battery.

List $89.95 *Order #3537* **$79.95**

MFJ-550

Economy straight key includes adjustments for tension and for gap size. Black plastic base.

Order #4656 **$14.95**

MFJ-553

This is the MFJ-550 mounted on a beautifully stained wood base with cable to 3.5mm mini plug.

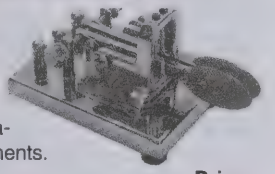
Order #1294 **$27.95**

MFJ-461

The **MFJ-461** Morse Code Reader lets you watch Morse code signals turn into text messages. The words simply scroll across the LCD display. No cables to hook-up, no computer, no interface, no other equipment needed! Two-line, 32 character LCD display. Requires a 9 volt battery, not supplied.

List $89.95 *Order #2070* **$84.95**

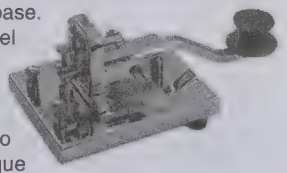
VIBROPLEX®



"Vibroplex, since 1890", is the oldest name in amateur radio. All the Vibroplex Iambics feature jeweled movements.

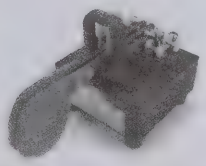
Order#	Model	Price
4272	**Iambic Standard**	**$149.95**
4277	**Iambic Deluxe** (shown)	**188.98**
3360	**Iambic Presentation**	**259.98**
3325	**Iambic Gold**	**289.98**

The **Vibroplex Straight key** is distinctly designed on a heavy solid base. The stainless steel spring allows complete control of the tension. The famous Vibroplex logo plate with a unique serial number pinned to the top of the base with stainless steel pins.



4417	**Straight Key Standard**	**$159.95**
4366	**Straight Key Deluxe** (shown)	**199.95**

The massive **Vibroplex Vibrocube Upgraded** iambic with jewel movement registers just under 6 pounds on the scale.



1995 **Vibrocube Upgraded** **$201.98**

The **Code Warrior Junior** is an elegant iambic key that utilizes magnetic action (no springs!). It is beautifully made and a very compact 2.5 x 3"

0561	**Code Warrior Junior**	**$98.95**
3265	**Chrome Code Warrior Junior**	**139.95**

✔ Visit our website for more Vibroplex products.

✔ Keys and paddles require cable not included.

MFJ-464

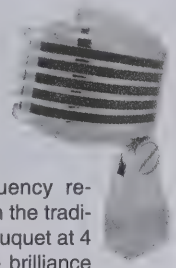
Plug-in the **MFJ-464** Morse Code Reader/Keyer to your operating station, then watch CW turn into solid text messages as they scroll across the LCD display. The AutoTrak feature locks on, tracks, and displays CW up to 99 WPM. Simply plug in your MFJ-464 to your receiver speaker until the lock LED flashes in time with the CW. You can also send CW or load messages using a paddle, AT PC keyboard, or through your computer serial port (none supplied). Requires 12 VDC or with optional MFJ-1312D AC adapter. 6.25 x 2.5 x 6.25".

List $199.95 *Order #1363* **$179.95**

PRO10 PKG

The stunning **Heil PRO10 PKG** features a dynamic studio quality microphone *and* LB-1 adjustable illuminated base. It produces fully articulate sound from 85Hz to 16kHz. This mic requires a CC1-XLR cable (not included).
List $276.00 *Order #6406* **Please Call**

FIN



The **Heil FIN** utilizes the professional PR20 cardioid element housed in a gorgeous high-gloss chrome-finish enclosure. If phantom power is provided, the blue wind screen becomes illuminated by four imbedded LEDs, adding an art deco appearance. The frequency response is 60 Hz to 18 kHz with the traditional Heil sound mid range bouquet at 4 kHz which presents incredible brilliance and presence. Includes aluminum carry case with a cloth mic pouch. This mic does not include the required XLR cable or stand.
List $220.00 *Order #5022* **Please Call**

PR30

The **Heil PR30** Proline broadcast mic is a professional quality dynamic cardioid microphone designed for commercial broadcast, recording and live sound reinforcement applications and it has a sound comparable to the finest condenser microphone because of its wide frequency response, excellent transient response and low IMD. Shown with optional SM2. List $252.00 *Order #2920* **Please Call**

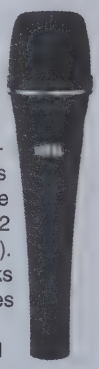
GM Elite

The new **Heil GM Elite** is a dual element mic with broadcast wide response and the new narrow Heil HC-5.1 element. This mic, and the GM series, require CC-1 cables, sold separately.
List $163.00 *Order #2583* **$139.95**

HHG

The **Heil Heritage** is a 600 ohm balanced mic with a full-range frequency response optimized for modern DSP-based rigs that have mic equalization Requires CC-1 cable, sold separately.
HHG Silver *Order #4602* **$183.98**

PR35



The new *upgraded* **Heil PR35** features a large-diameter, high-clarity element. Its three-position switch allows the operator to set the low-end roll-off point at 40 Hz, 60 Hz, or 120 Hz for best results on the air. The PR35 has a soft-touch outer coating that makes this mic an outstanding addition for high-end transceivers like the Icom 7800 or Pro series and the Yaesu FTdx9000/2000/950. The mic clip screws onto the CB-1PTT, SB-2 and PL-2T mounts (which are not included). Uses 3-pin XLR connector, and works with CC1-XLR series of adapter cables (sold separately).
List $276.00 *Order #5868* **Please Call**

iCM

The **Heil iCM** mic is expressly for Icom ***pre*** PRO models and features the new Heil 'iC' element (35 to 10,000 Hz @-3dB) perfect for the early ICOM audio preamplifiers. The beautiful platinum finish body is perfect for hand held use or mounting on a desk stand or microphone boom. It is supplied with a universal mic clip that will interface with a variety of stands and booms. The iCM comes complete with an attached 5 foot Heilwire cable and terminates in the familiar 8 pin Foster connector wired to mate with all early 8 pin Icom front ends. A ¼ inch female pig tail exits this 8 pin connector that allows the interface of a footswitch or hand switch (both optional) to control the PTT line. A soft touch PTT switch is mounted on the body of the iCM.
List $118.00 *Order #3224* **$99.95**

PR781

The **Heil PR781** provides electrical and acoustical performance identical to that of the former PR780, but in a more compact enclosure that is eye-catching and downright beautiful. PR781 comes only with the SM3 mount, as shown. It does not include a base or required CC1 XLR cable. G version has gold colored windscreen.

PR781	*Order #2045*	**$149.95**
PR781G	*Order #6202*	**$169.95**

PR40

The **Heil PR40** Proline Broadcast mic features the new technology of the Heil DM-6 dynamic element with response down to 28 Hz and stays perfectly flat up through 18kHz. with a beautiful mid range rise giving this microphone gorgeous vocal articulation. Includes SM-3 5/8"-27 mount assembly.
Order #3886 **Please Call**

PR77

The **Heil PR 77** is at home on stage or in your shack. Exceptional performance is achieved with a large 1½ inch low mass voice coil encompassed by a powerful magnet structure using the mixture of neodymium, iron and boron. A two position switch selects voice or music and rolls the audio off at 80 Hz at -6 dB per octave while the music selection removes the filter and the entire audio spectrum of 40 Hz to 18 kHz is present. Dynamic 600 ohm element. Requires appropriate CC-1 cable (sold separately). Standard 5/8 inch 27 thread for your base or boom.
List $249.00 *Order #5077* **Please Call**

CC1 MIC CABLES

#1772	**CC1-D**	Drake 4 Pin Plug	**$33.98**
#0108	**CC1-i**	Icom 8 Pin Plug	**$32.95**
#0351	**CC1-iM**	Icom Modular	**$32.95**
#3114	**CC1-K**	Kenwood 8 Pin	**$32.95**
#0239	**CC1-K-4**	Kenwood 4 pin Plug	**$34.95**
#1051	**CC1-KM**	Kenwood Modular	**$32.95**
#4528	**CC1-T**	Ten-Tec 4 Pin Plug	**$32.98**
#1517	**CC1-Y**	Yaesu 8 Pin Plug	**$32.95**
#0820	**CC1-Y-4**	Yaesu 4 Pin Plug	**$32.98**
#0336	**CC1-YM**	Yaesu Modular	**$32.95**
#1622	**CC1-XLRI**	Icom 8 Pin Plug	**$33.95**
#1508	**CC1-XLRK**	Kenwood 8 Pin Plug	**$33.95**
#1623	**CC1-XLRY**	Yaesu 8 Pin Plug	**$33.95**
#5648	**CC1-XLRYB**	Yaesu 8 Pin Plug	**$34.95**
#1480	**CC1-XLR3**	XLR 3 Pin Plug	**$33.95**
#5489	**CC1-XLR4**	XLR 4 Pin Plug	**$32.98**

CH1 MIC CABLES

#3408	**CH1-i**	Icom 8 Pin Plug	**$23.98**
#3401	**CH1-iM**	Icom Modular	**$23.98**
#3361	**CH1-K**	Kenwood 8 Pin Plug	**$23.98**
#3386	**CH1-KM**	Kenwood Modular	**$23.98**
#4766	**CH1-Y8**	Yaesu 8 Pin Plug	**$23.98**
#3346	**CH1-YM**	Yaesu Modular	**$23.98**

PR20 UT

The **Heil PR20 UT** Proline broadcast mic is a professional quality dynamic cardioid microphone. Please see our website for full details.
List $101.00 *Order #5290* **Please Call**

YAESU

M1

The innovative **Yaesu M1** reference microphone features both condenser and dynamic elements. Each element may independently adjusted by the internal nine band graphic equalizer and volume control. Has 20 second diagnostic record/playback. Includes LCD display, red TX LED, headphone jack, low-cut filter, XLR output and removable treble boost cowling. 30-17000 Hz.
List $890.00 *Order #6735* **Please Call**

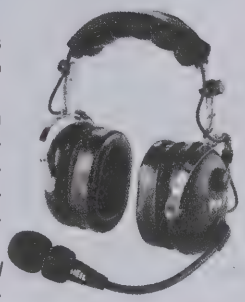
PROSET ELITE

The Heil **Pro Set Elite** offers efficient speakers mounted in acoustically-tuned enclosures, to provide a high degree of passive outside noise rejection. They include Heil's exclusive Phase Reversal system, which allows the operator to put the incoming signals in and out of phase between the left and right ears, creating a spatial separation of signals in dynamic pile-up situations on today's crowded bands.

PSE-6 Pro Set Elite 6 with HC-6 element to enhance articulation in SSB. Needs AD1 cable.
List $183.00 *Order #5477* **$159.95**

PSE-ic Pro Set Elite iC is exclusively for Icom transceivers and has an "iC" electret condenser element and included AD1-ic cable adapter [8 pin].
List $194.00 *Order #0612* **$169.95**

PRO 7



The **Heil Pro 7** brings truly new technology to the headset industry. The 2" thick gel foam ear pads provide extreme comfort and provide passive noise reduction for high ambient noise environments. The Heil *phase reversal* system lets you acoustically move the signals forward and creates a spatial widening of the sound field to pull a weak signal from a pileup. A speaker balance control allows preferred level between the speakers. The low distortion dynamic, 600 ohm HC-7 element has a frequency response of 100 Hz - 12 kHz. Requires the AD-1 cable, sold separately.

Pro 7 Black *Order #2347* **$269.95**
Pro 7 Red *Order #6435* **$269.95**
Pro 7 Blue *Order #1707* **$269.95**

Pro 7 iC Black is exclusively for Icom transceivers and has an "iC" electret condenser element and includes AD1-ic cable adapter [8 pin].
Pro 7iC Black *Order #1125* **$276.95**

PL-2T

The **Heil Proline PL-2T** is the finest professional microphone boom available. It is silent as it moves, is perfectly balanced and stays exactly where it is placed. It handles microphones up to 1.5 pounds and has the standard 'C' clamp mount that will accept a 1.5 inch thick table. You can remove the top and back plates to easily thread the mic cable inside the boom without removing the plug. It accepts the standard 5/8"-27 threaded mic clips or shock mounts. Mic and SM-1 shown not included.
List $120.00 *Order #2099* **$119.95**

PMS6 PMD6

The **Heil PMS6** *single* sided boomset is similar to the Traveler HTSS, but utilizing the new Heil HC-6 mic element. The **Heil PMD6** is a *dual* sided version (not for mobile use). Both require the appropriate AD1 cable for your radio (sold separately).

PMS6 [Single] *Order #3124* **$72.95**
PMD6 [Dual] *Order #3501* **$84.95**

AD1 BOOMSET CABLES

#3879	**AD1-i**	Icom 8 Pin Plug	**$18.95**
#3336	**AD1-iCM**	Icom Modular	**$18.95**
#1393	**AD1-K**	Kenw/Alinco 8 Pin Plug	**$18.95**
#2718	**AD1-K-4**	Kenwood 4 Pin Plug	**$19.95**
#2056	**AD1-KM**	Kenw/Alinco Modular	**$18.95**
#0933	**AD1-T**	Ten-Tec 4 Pin Plug	**$19.95**
#0712	**AD1-Y**	Yaesu 8 Pin Plug	**$18.95**
#1717	**AD1-Y-4**	Yaesu 4 Pin Plug	**$18.98**
#2055	**AD1-YM**	Yaesu Modular	**$18.95**

INRAD

DMS629

The **INRAD DMS629** is a revolution in price versus performance for Amateur Radio microphones. This unidirectional cardioid dynamic microphone features a large 1.125" diaphragm and an internal rubber element suspension system for reducing undesirable noise. Excellent 180 degree rear rejection cardioid response. Excellent articulation across the specified frequency response with a rise in response to match the voice characteristics of speech. Output tailored to rise from 500 Hz, crossing 1 kHz up to 4 kHz, exaggerating the microphone output frequency response of these vocal frequencies. The result is clear, overall well-articulated audio response tailored to match intelligibility of human voice. Available with various mic cables.

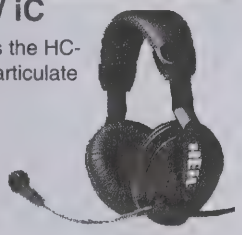
DMS629 IC8 *Order #5516* **$157.98**
DMS629 KW8 *Order #3916* **$157.98**
DMS629 YS8 *Order #6896* **$157.98**
DMS629 YSM *Order #3906* **$157.98**

HHS

ACCESSORIES

#6518	**MFS**	PTT Foot Switch	**$14.95**
#0371	**HHS**	PTT Hand Switch	**$5.95**

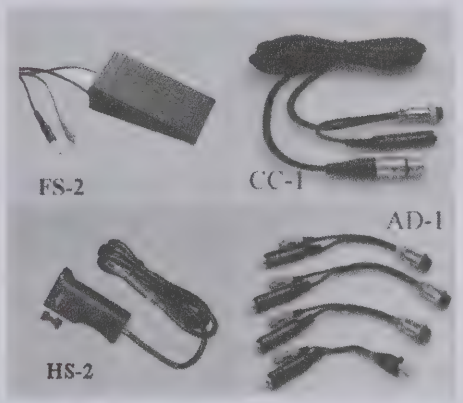
PROSET 6 / iC

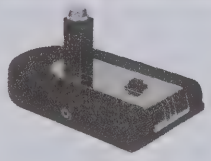


The Heil **Proset-6** uses the HC-6 element to provide articulate speech audio. The comfortable headband is fully adjustable and the mic boom is flexible. Requires AD1 type adapter sold separately.
List $155.00 *Order #5607* **$139.95**

Proset-iC is the same but with the famous Heil iC electret element and is *only* for Icom radios. The Pro Set ic *includes* the special AD-1 ic adapter.
List $167.00 *Order #0315* **$149.95**

MOUNTS & ACCESSORIES





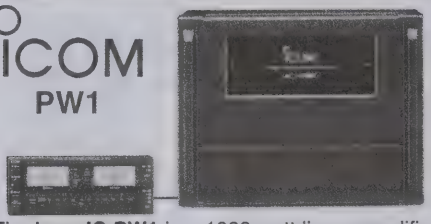
The **CB1-PTT** art deco base features a soft PTT switch that terminates on the left side to a 1/8" mini-jack *Order #1376*

#2840	**ADM817**	FT817 Adapter	**$24.95**
#3889	**BAG1**	Boomset travel bag	**$24.95**
#1376	**CB1-PTT**	Classic Mic Stand PTT	**$76.95**
#4263	**DT-1**	Flush desk flange mount	**$34.95**
#2025	**FL-2**	Desk flange mount	**$27.95**
#0481	**FS-2**	Dual Foot Switch	**$39.95**
#2621	**FS-3**	Single Foot Switch	**$23.95**
#5636	**HB-1**	Economy Mic Boom	**$59.95**
#6204	**HBA**	Bluetooth adapter	**$109.95**
#2645	**HEILWIRE**	Mic wire 20 feet	**$21.95**
#3887	**HS-2**	Hand Switch	**$29.95**
#4242	**RS-1**	Riser	**$27.95**
#4629	**SB-2**	Small Mic Boom	**$60.95**
#0409	**SM-1**	Shock Mount	**$79.95**
#6081	**PRSM-B**	Shock Mount Black	**$99.95**
#2443	**PRSM-C**	Shock Mount Champg	**$99.95**
#4601	**HTM**	TM1 Triple mic mount	**$14.95**
#4630	**WM-1**	Wall Mount	**$21.95**
#2407	**XT-1**	Imped. Match Xformer	**$16.95**

HM-12

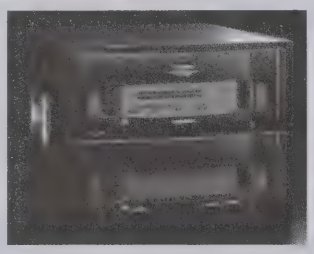
The **Heil HM-12** mic features the new Genesis dynamic element with wide response and mid range articulation for SSB/AM/FM communications. Requires CC-1 cable, sold separately.
List $72.00 *Order #2168* **$59.95**

ICOM PW1



The Icom **IC-PW1** is a 1000 watt linear amplifier with built-in power supply. This state-of-the-art, heavy duty amp covers HF plus 6 meters. It features auto band changing, four antenna connectors and three cooling fans. The control head is removable and remoteable.
List $6250.00 *Order #2925* **Please Call**

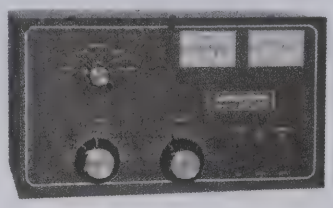
YAESU VL1000



The **Yaesu VL-1000** Quadra System high performance linear amplifier covers 160 to 15 and the 6 meter amateur bands. Combined with its matching VP-1000 power supply unit, the VL-1000 is a compact desktop design utilizing rugged MRF150 MOSFETs in a four-unit, push-pull configuration to provide 1000 watts output (500 watts on 6 meters). Automatic band-switching is provided when used with many Yaesu transceivers. Shown above in optional MR-1000 mounting rack. Three year mfg. limited warranty!
List $6999.00 *Order #3641* **Please Call**

Yaesu MR-1000 mounting rack for VL1000.
Order #0000 Discontinued

AMERITRON AL-811



This amp uses three tough *811A* tubes to give you 600 watts of PEP output. 13.75"W x 8.65"H x 16"D. Weight: 31 lbs. (40 lbs. ship).
List $849.00 *Order #1883* **$769.95**

AL-811H

Like the AL-811A, but with four fully neutralized *811A* tubes for 800 watts.
List $999.00 *Order #2902* **$899.95**

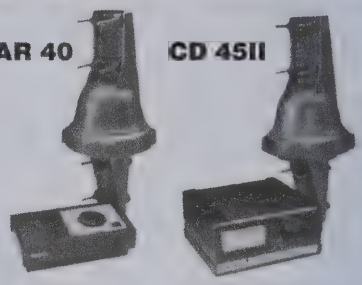
AL-80B

The **AL-80B** combines a single *Eimac 3-500* power tube with a heavy-duty tank circuit for up to 70% plate efficiency. Frequency: 15, 20, 40, 80 and 160 meters. Drive power: 85 watts for full output. RF input power: SSB-1000 watts PEP, CW-850 watts. Power requirement: 120 VAC 15A or 240 VAC 7.5A. Weight: 48 lbs.
List $1595.00 *Order #0575* **$1399.95**

ALS-500M

This **Ameritron ALS-500** is a mobile solid state amplifier providing power output up to 500 watts PEP and 400 watts CW from 1.5 through 21.6 MHz. Enjoy instant band switching, no tuning, no warm up - just turn on and operate. This amplifier operates on 13.8 VDC electrical systems and draws a peak current of 80 Amps at full output. Power supply is not included. 9 x 3.5 x 15" 7 lbs.
List $949.00 *Order #2460* **Please Call**

hy-gain



AR 40 Light Duty. Wind load: 3 sq. ft. 5C
List $349.95 *Order #2394* **$319.95**

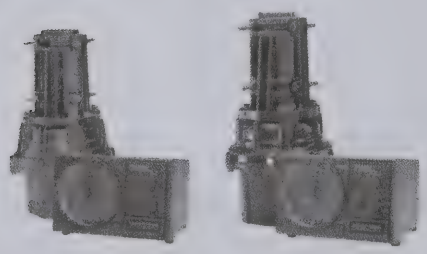
AR500 Extremely Light Duty. Wind: ? sq. ft. 3C
List $129.95 *Order #6909* **$124.95**

CD45II Light Duty. Wind load: 8.5 sq. ft. 8C.
List $449.95 *Order #2393* **$399.95**

HAMIV Medium Duty. Wind load: 15 sq. ft. 8C
List $649.00 *Order #2392* **$599.95**

T2X Heavy Duty. Wind load: 20 sq. ft. 8C.
List $799.95 *Order #2391* **$699.95**

YAESU G-800DXA G-2800XDA



Yaesu rotators are precision-designed for a wide variety of antenna installations. Smooth and quiet in operation, these rotators are housed in weatherproof, die-cast aluminum enclosures and are permanently lubricated.

G-450A Light Duty. Wind load: 10 sq. ft.
List $375.00 *Order #3745* **$299.95**

G-800DXA Medium Duty. Wind load: 17 sq. ft.
List $630.00 *Order #4200* **$499.95**

G-1000DXA Heavy Duty. Wind load: 23 sq. ft.
List $790.00 *Order #4148* **$599.95**

G-2800DXA Extra Heavy Duty. Wind : 34 sq. ft.
List $1750.00 *Order #0266* **$1299.95**

G-550 Elevation only.
Order #0000 Discontinued

G-5500 Azimuth-Elevation
List $945.00 *Order #0180* **$749.95**

Please see **ROTOR CABLE** on page 52.

C1000 Interface cable for SDX series.
List $40.00 *Order #0314* **$31.95**

MIRAGE

Mirage VHF/UHF amplifiers are designed for rugged reliable all-mode operation. There is a model offered for any portable or fixed station installation.

Ant connector types: U=UHF. MM=multimode

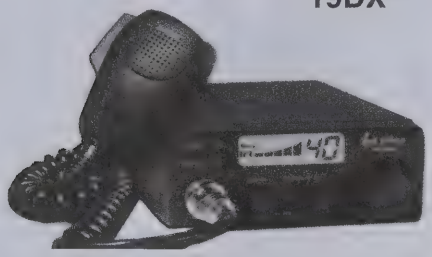
Order #	Model	Band	In W	Out W	Mode	Pre	Ant	Required Power	List	Your Price
2671	**BD35**	2 M/440	4	45/35	FM	No	U	12VDC at 7A	$229.95	**$209.95**
3469	**B34**	2 Meter	2	35	FM	No	U	12VDC at 5A	139.95	**129.95**
3468	**B34G**	2 Meter	2	35	MM	Yes	U	12VDC at 5A	159.95	**144.95**
1481	**B310G**	2 Meter	8	100	MM	Yes	U	12VDC at 15A	279.95	**259.95**
3180	**B1018G**	2 Meter	10	160	MM	Yes	U	12VDC at 25A	489.95	**449.95**
2189	**B2518G**	2 Meter	25	160	MM	Yes	U	12VDC at 22A	439.95	**399.95**

YAESU GS-232B

The **Yaesu GS-232B** Rotor Computer Interface provides digital control of most Yaesu antenna rotators. The 3 wire async serial line can be configured for serial data rates from 1200 to 9600 baud. The unit has a DB-9 male connector for connection to your RS232C port. Supplied items include: Control cable for the Azimuth rotor (5 pin to mini DIN), Control cable for the Az/El rotor (Dual 5 pin to DIN cable), DC power cable and hook and loop fasteners. Requires 12 VDC at 110 mA. The Yaesu C1000 cable is required for the SDX series.
List $870.00 *Order #4228* **$599.95**

Cobra®

19DX^IV

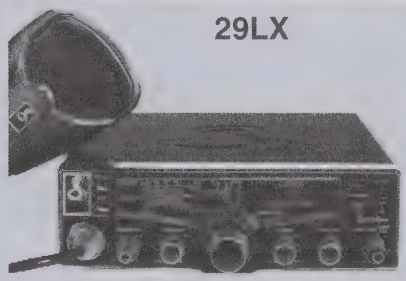


The **Cobra 19DX^IV** contemporary styled 40 channel compact CB has an LCD, S-meter, PA and instant channels 9 and 19. 4.6 x 1.8 x 6.8"
Order #3718 **$44.95**

18WXSTII

The **Cobra 18WXSTII** features: LED S/RF meter and LEDs for RX, TX and WX. You have instant access to ten NOAA weather channels. Cobra's SoundTracker® technology significantly reduces the amount of static on all incoming CB signals. It is further optimized when two SoundTracker® CB's are communicating. Front firing speaker and instant channel 9/19. 6.75 x 2 x 6.9" 4.25 lbs.
Order #1297 **$69.95**

29LX



The impressive **Cobra 29LX** has a four color (red, blue, green or amber) selectable display plus day and night illumination settings. Receive ten NOAA channels with scan and weather alert. You get 40 channels with memory scan and full frequency display. Designed for the professional driver, there is a clock, on-duty drive timer and alarm function. Has instant channel 9/19, SWR calibration antenna warning and full metering. 13.8 VDC at 1.5 Amps.
Order #5522 **$119.95**

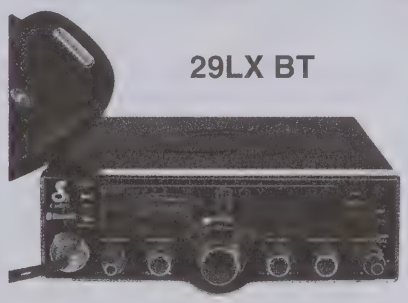
HHRT50

The **Cobra HHRT50** ***Road-Trip*** is a powerful 4 watt, 40 channel handheld walkie talkie with ten NOAA weather channels. This model features: SoundTracker® technology, instant channel 9/19 and a backlit display. With: cigarette lighter cord, flex antenna, and auto mag mount antenna. Requires nine AA cells, not included.
Order #2428 **$99.95**

29LTDBT

The **Cobra 29LTDBT** features NB, ANL, Delta tuning, RF Gain, instant channel 9, Dynamike Gain, speaker jack, RX/TX LEDs, dimmer switch and illuminated analog S/RF/SWR meter. With 6 pin hand mic. Supports BlueTooth integration. Requires 13.8 VDC at 1.5 Amps. 7.4 x 2.3 x 9"
Order #5069 **$139.98**

29LX BT



The **Cobra 29LX BT** Bluetooth® version provides drivers a better way to have phone conversations on the road because calls to your mobile phone are synced with the CB radio. Incoming audio is routed through the radio's speaker making it easy for the driver to hear who is calling with caller ID. A noise canceling microphone allows calls to be heard loud and clear, even over a noisy engine. There is even Text to Speech Conversion of e-mails read through the CB with downloaded app. The system provides one-touch protocol for compliance and gives the driver the ability to stay focused on the road.
Order #6504 **$149.95**

uniden Bearcat

PRO401HH

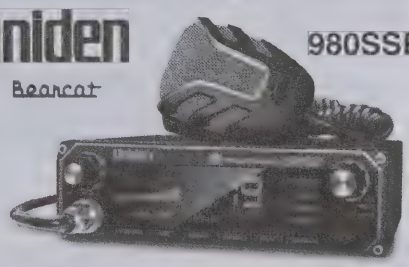
The **Uniden PRO401HH** 40 channel handheld CB features: 4 Watts RF output, transmit light, ANL/AGC, squelch and internal battery charging. With: belt clip, wrist strap, vehicle cigar-plug DC power cable, flexible BNC antenna and manual. This radio requires 9 AAs (not included). The AA batteries may be alkaline or rechargeable — selectable by an internal switch.
Order #0401 **$51.95**

CM560

The **Uniden Bearcat CM560** ***Off Road*** is completely controlled from the sophisticated speaker/microphone/display. The display tells you everything including channel, frequency, S/RF level, scan mode, noise blanker status, etc. You can scan UP or DOWN, all channels or just the memories.
Order #1560 **$99.95**

uniden Bearcat

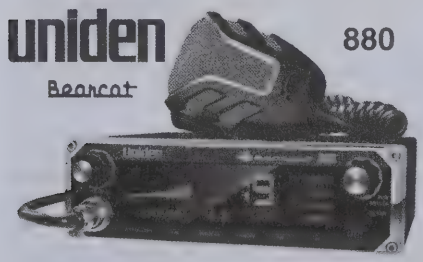
980SSB



The **Uniden Bearcat 980SSB** 40 channel CB radio operates in normal AM *and* **SSB**-Single Sideband. It has a stunning front panel with seven color selectable display back lighting with adjustable brightness and contrast. Built-in diagnostics check the antenna match, RF power and supply voltage. Other features include S/RF/CAL/SWR Meter, PA, NOAA weather, frequency display, noise blanker, mic gain, all channel scan, memory scan, RF gain and instant channel. Comes with a 6 pin, noise-canceling mic with extra long cord, mobile bracket and mic clip. 6.3 x 2.2 x 6.3".
Order #2980 **$134.95**

uniden Bearcat

880



The **Uniden Bearcat 880** 40 channel CB radio features a stunning front panel with seven color selectable display back lighting and you can adjust brightness and contrast independently. Built-in diagnostics check the antenna match, RF power and supply voltage. Other features include S/RF/CAL/SWR Meter, PA, NOAA weather, frequency display, noise blanker, mic gain, all channel scan, memory scan, RF gain and instant channel. With a 6 pin, noise-canceling mic and mic clip. 6.3 x 2.2 x 6.3".
Order #3880 **$109.95**

✔ Please also see page 19 for the revolutionary **Uniden Bearcat 885** CB *and* scanner.

Wilson Antenna

Our most popular mobile CB antenna is the **Wilson Little Wil**. The 37 inch Little Wil includes magnetic mount plus coax and can handle up to 300 watts *#3933* **$34.95**. Visit our website to view other available CB antennas.

samlexamerica

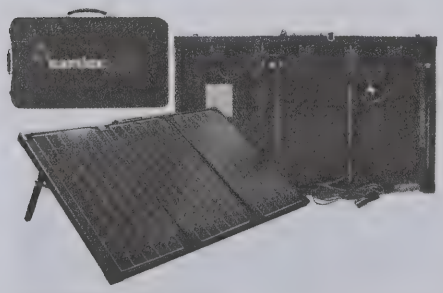
SRV100-30A

The **Samlex SRV100-30A** solar charging kit comes with a high efficiency 100 Watt solar panel, a 30 Amp charge controller, connecting wires, aluminum mounting brackets and hardware that can be used to secure the solar panel to the roof of your remote structure or vehicle, or any other flat surface. The SRV100-30A charging kit includes the advanced SCC-30AB charge controller featuring: microprocessor control, 30 Amp charging capacity, battery equalization, digital LCD display of voltage, current and battery AH, 8 charge settings for different battery types, optional remote temperature sensor, 4 stage charging with LED indicators and dual 12V/24V voltage capability. Panel size: 47.48 x 21.73 x 1.38".

Order #6339 **$499.95**

samlexamerica

MSK-90v2



The **Samlex MSK-90v2** Solar Charging Kit is portable easy to use! Just unfold, plug in and start charging. The three panel segments provide up to 90 watts of power. Capture the power of the sun without complicated installations, brackets or electrical diagrams. The 10 Amp controller is built into the back panel. Adjustable legs allow for easy directing. Each Kit comes with a convenient insulated carrying case that also protects the panels when stored. Comes with a pair of Anderson Connectors & Battery Clamps and 14 foot cable. This is a well constructed item. Size open: 40.75 x 25.39 x 1.18 inches 25.2 lbs.

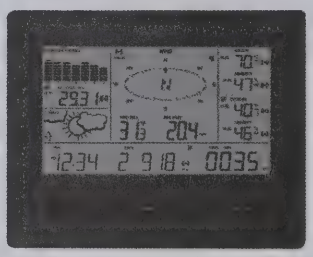
Order #6123 **$349.95**

MFJ-144RC

The **MFJ-144RC** forecast station shows: time in 12/24 hour format (and may be set to UTC!), indoor and outdoor (-39° to 140° F) temperature and forecast icon. The atomic clock sets itself to WWVB. The 2¼ inch clock digits are easy to read. Alarm and Daylight Savings functions are supported. Displays in English, Spanish or French. Includes outdoor wireless sensor operating at 915 MHz with a range of up to 330 feet. This clock is 12 x 8 inches and may be set on a table or hung on a wall. Requires 4 AA batteries (not included).

Order #1821 **$39.95**

MFJ-198B



The **MFJ-198B** mnoitors your indoor environment and backyard weather. Measures Wind Chill to -40 degrees F, Relative Air pressure with history graph, Wind Speed with Min/Max Time/Date, Wind Gust with Max time and Date, Rainfall for last hour, 24 hour, week, month and total plus Weather Alarms for Temperature, Humidity, Wind gust/Direction, Pressure, Rain and Storm Warning. Requires 3 C cells (not included).

Order #3420 **$169.98**

MFJ-154RC

The **MFJ-154RC** is a color weather station with atomic 12/24 hour clock also shows, month, day and date. Color forecast icons for: sunny, partly sunny, cloudy, rainy or stormy. Also shows moon phases, indoor (+32 F° to +122 F°) and outdoor (-40 F° to 140 F°) temperature and humidity with minimum/maximum. The 7.5 inch diagonal dynamic color screen has adjustable (high/low/off) back lighting. For all U.S. time zones, including Atlantic, Alaska and Hawaii. Daylight Savings Time can be turned off. May be desk mounted or hung. With wireless outdoor sensor (300 feet) and AC adapter. Requires three AAA and two AA batteries (not included). 6.2W x 9.7 H x 1D inches.

Order #6468 **$54.95**

eton

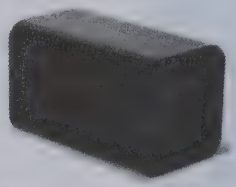
BT2000

The **Eton Boost Turbine 2000** lets you charge your mobile device anytime, anywhere. The Boost Turbine is made of tough, but lightweight aluminum with a sleek and elegant design that will fit right in your pocket. Fast and efficient, one minute of turning will power a 30 second call or a few critical texts. When fully charged it will fully recharge most smartphones. It features an integrated 2000 mAh Li-ion battery, a 4 LED charge indicator, standard USB output and micro-USB input. Supplied with micro-USB cable. Now available in only white. 3.3 x 7 x 1.5" 13 oz.

#5995 **BT2000 WHT** White **$39.98**

eton

BB6600

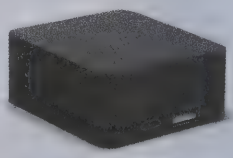


The **Eton BoostBloc6600** is a backup battery pack that when fully charged will in turn charge most smartphones multiple times and even larger tablets like the iPad. It has dual USB charging ports so you can charge two phones, or an iPad and a phone simultaneously. It features an integrated 6600 mAh Li-ion battery, a 4 LED charge indicator, dual standard USB outputs and micro-USB input. Supplied with micro-USB cable. An LED charge indicator lets you monitor the battery charge level. Available in black or white. 2.2 x 1 x 2.2" 4 oz.

#6023 **BB6600 BLK** Black **$47.98**
#2854 **BB6600 WHT** White **$47.98**

eton

BO8400



The **Eton Boost8400** is a 8400 mAH lithium ion backup battery pack that provides long-lasting reliable power whenever and wherever you need it. When fully charged BoostBloc8400 fully charges most smartphones multiple times and even larger tablets like the iPad. The Boost 8400 features a Micro-USB DC input to use with most smartphone chargers and *dual* 2.1 Amp USB charging ports so you can charge two devices simultaneously. With a 4 LED charge indicator and micro-USB cable. An LED charge indicator lets you monitor the battery charge level when you give it a quick shake.

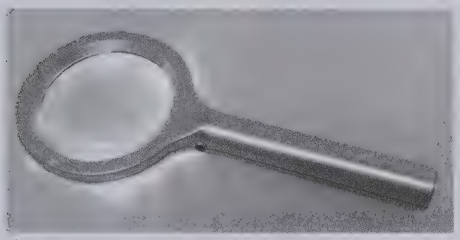
#6176 **BO8400 BLK** Black **$49.98**

COFFEE MUG

This attractive cobalt blue mug features the Universal Shortwave globe logo and lettering in white and red. Holds 10 ounces.

Universal Mug *Order #5605* **$6.98**

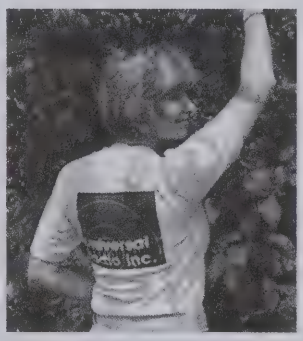
MG8B-2



This 3 inch, 3X hand-held magnifier has 6 built-in white LEDs for illumination. It is handy for reading fine print, viewing surface mount components or detailed hobby work. Requires 2 AAs (not included).

MG8B-2 *Order #6575* **$7.95**

UNIVERSAL TEE-SHIRTS



This comfortable Universal tee-shirt is a 50/50 cotton blend and features a small logo on the front and a large logo on the back. The tee shirt is white and the logo is deep blue.

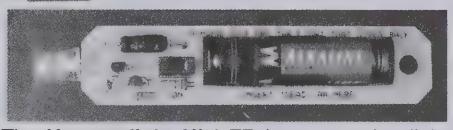
Small	*Order #4386*	**$10.95**
Medium	*Order #4387*	**$11.95**
Large	*Order #4388*	**$12.95**
X Large	*Order #4389*	**$13.95**
XX Large	*Order #4390*	**$14.95**
XXX Large	*Order #4391*	**$15.95**
XXXX Large	*Order #4392*	**$16.95**

C.CRANE FM2

The **C. Crane FM2** FM transmitter is the easy way to send audio from music player, PC or XM radio to any FM receiver in your home. The FM2 will transmit full stereo from 88.3 to 107.7 MHz. The LCD shows you the selected frequency. The approximate line-of-sight range is 70 feet (walls and metal objects will reduce range). Operates from included AC adapter or two AA cells (not supplied). 3.1 x 3.5 x 1.1 inches 5.8 oz. The input to the FM2 is an audio cable with a 3.5mm stereo plug.

FM2 *Order #5744* **$49.95**

HL1-FR



The **Humanalight HL1-FR** is an amazing light source kit. It was developed by the *Ears To Our World* nonprofit organization that specializes in the distribution of self-powered world band radios and other appropriate technologies to schools and communities in remote, rural and impoverished regions of our world. This simple light source is powered by a single AA cell. And it lasts not 5 hours, not 5 days, but up to 5 *weeks!* The simple circuit *dramatically* extends the life of the AA cell. You can even insert a "dead" AA cell, and it will light for days. It makes a great first soldering project. Clear instructions are included. A third benefit of this item is that it helps support the great humanitarian work that *Ears To Our World* is doing worldwide. To build this kit the following materials and tools are required: low wattage (25-45W) soldering iron with pencil tip, diagonal or flush cutting pliers, long-nose pliers, thin rosin-core electronics solder and one AA.

HL1-FR *Order #0814* **$15.95**

Optional ABS case (not shown) protects the circuitry for carrying in your pocket.

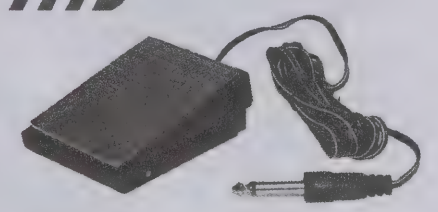
HL CASE *Order #6672* **$14.95**

C.CRANE USB3

The **C. Crane Super USB3** WiFi Antenna is your answer to increased WiFi range. The antenna incorporates a water resistant design for indoor or outdoor use (IP65 rated), along with wireless "N" technology for lightning fast file transfers with your "N" router. With an up to 1 mile range, it is great for using your laptop in the backyard or from an out building. It simply plugs into a unused USB port on your PC (or use two USB ports for even greater range). Compatible with 802.11 B, G, and N. Up to 150 Mbps. WEP, WPA, WPA2, WPS encryption compatible. Windows XP, Vista 32/64, Windows 7 32/64, 8, 10 plus MAC OS 10.4-10.8. Only 1.4 x 10 x 0.6 inches. 1.8 oz.

USB3 *Order #5888* **$68.98**

MFJ-1709



The **MFJ-1709** foot switch is great for boom mic headphones to keep your hands free. 2.5 x 1.25 x 3.5 inches with non-skid pad with cushioned foot pedal. 1/4 inch phone plug. Ten foot cord.

MFJ-1709 *Order #5463* **$19.95**

TRAVEL MUG

This bright orange travel mug has a removable lid with a sipping valve you can open and close. It features the Yaesu logo and holds 16 oz. Made in the U.S.A. by Omega.

Travel Mug
Order #1632 **$4.95**

BB H_2O

The **Eton Blackout Buddy H_2O** is an always-ready, water-activated emergency light. No batteries are required. Simply add a small bit of water to activate the battery module. Add water once a day (or leave it standing upright in a saucer of water) for up to 72 hours of illumination. A safer alternative to candles and matches. Sold in a package of three units. Please note that this is a one time use device.

BB H2O-3PAK *Order #2736* **$12.98**

70 MUG

This attractive cobalt blue mug features gold metallic paint and has a full size handle. This *Universal Radio 70th Anniversary* mug holds 11 ounces. Not for microwaves.

70 Mug *#5853* **$8.98**

MFJ-4434

The **MFJ-4434** converts a cigar lighter jack to two terminal binding posts. Fused. The manufacturer does not indicate capacity, but we *estimate* at under 9 Amps.

MFJ-4434 *Order #6308* **$14.95**

ARC109 ARC110

How do you safely connect a PL-259 to the SMA jack on your handheld radio without stressing the radio's connector? The answer is the ARC109 cable assembly. It is made with 4 feet of very low loss LMR-100® coax cable (*not* high loss RG174!). More cables on page 52.

ARC109 *Order #4513* **$18.95**

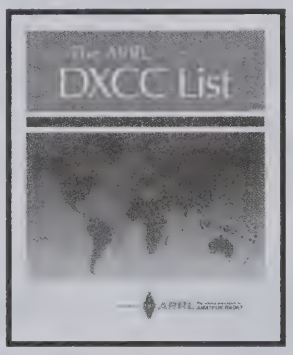
Same 4 foot cable but SO-239 to BNC male.

ARC110 *Order #4512* **$17.95**

A.R.R.L. AMATEUR RADIO STATION MINI LOG

This popular, spiral bound 6.25 x 4 inch mini log has headings for: Date, Time, Frequency, Mode, Station Worked, Report Sent, Report Received, Comments. 96 pages are for recording 720 contacts. *ARRL.*

Order #4057 ..... **$4.95**



A.R.R.L. DXCC LIST

Record the DXCC Entities you've worked and QSLed! This new edition includes a complete listing of DX Century Club rules. It contains information about each entity on the DXCC List, deleted entities, and the latest DXCC Entity additions. Also included are a prefix cross-reference, the list of international call sign series and more. ©2018 *A.R.R.L.*

Order #4222 ..... **$5.95**

C.CRANE CC Witness+

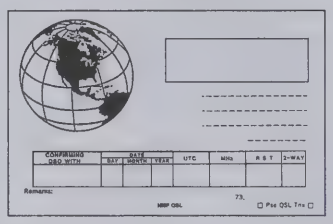
The **C. Crane CC Witness *Plus*** is a digital recorder/MP3 player *plus* AM and FM radio. Designed for the radio aficionado, it has 2GB of onboard memory and up to 16GB of external memory on an SD card (not supplied). You will have plenty of room to store hundreds of hours of recordings. Don't miss your favorite radio show! It can record up to 20 programs in advance and you can also make MP3 recordings of AM/FM radio programs on the fly. Record meetings, memos, language lessons or even that memoir you've been wanting to write! And you can use it as an MP3 player to play back your songs or audio books. This new *Plus* version features stereo microphones, CD quality (WAV format) recording, and a mini USB jack. 2.2 x 4 x 0.6 in. 3.6 oz.

C Crane CWTPL *Order #5929* **$149.95**

Accessory kit with AC adapter, charging cradle and a protective case.

C Crane PLACC *Order #2285* **$39.95**

QSL CARDS



These blank QSL cards are printed on heavy 65# parchment stock. All pertinent information is provided on the front side for your convenience.

Package of 100 QSLs.

Globe QSL *Order #1116* **$5.95**

SANGEAN DAR-101

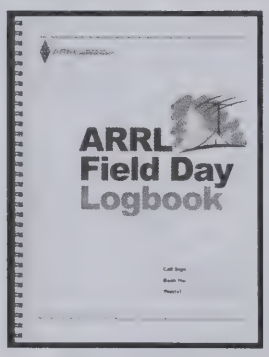
The **Sangean DAR-101** digital MP3 audio recorder offers high specification recording. It has three recording densities: 64k, 128k or 192k bps. It has a built-in 3 inch monitor speaker and clock. Recording sources include: Internal/External mic, telephone and line-input. It supports MP3 and WMA (Windows Media Audio) media with SD card. To transfer files you will need to have an SD card reader on the host computer. Then use an SD card (not supplied) to transfer files to a PC. The DAR-101 operates from four AA cells (not included) or included AC adapter. The AA cells may be alkaline or rechargeable. There is a switch in the battery compartment that must be selected, based on battery type. Recording telephone conversations without both parties' knowledge and consent is illegal in most states. Please consult your local authorities. A recording "beep" function is supported in this device.

DAR-101 *Order #4101* **$99.95**

ARRL ALL WEATHER AMATEUR MINI-LOG

Uses waterproof synthetic paper, and will work with pencil, non-water soluble inks, normal ball point pens or permanent markers. 50 pages of 8 contacts each. *A.R.R.L.*

Order #6430 ..... **$8.95**



A.R.R.L. FIELD DAY LOG BOOK

This special *Field Day* log book includes log sheets, dupe sheets, VHO Operating Tips, Band Chart, WAS map and much more. A great way to keep track of your involvement in this popular, annual operating event! ©2012 *ARRL.*

Order #3955 ..... **$7.95**

A.R.R.L. AMATEUR RADIO STATION LOG

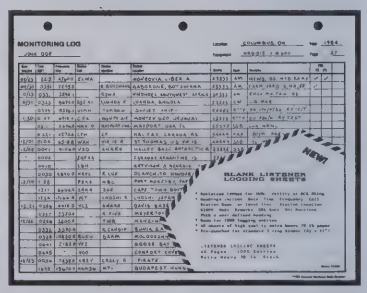
This popular 8½" x 11" log is bound with a metal spiral. Headings are: Date, Frequency, Mode, Power, Time, Station Worked, Report Sent, Report Received, Time Off, Comments, QSL Sent and QSL Received. ©1989 *ARRL.*

Order #0773 ..... **$7.95**

UNIVERSAL AMATEUR RADIO STATION LOG

This 8½" x 11" log is spiral-bound. The log headings are: Date, Time Start, Time End, Frequency, Mode, Station Worked, Signal Report (Theirs-Mine), QTH, Comments, QSL Sent, QSL Received and Zone. 30 pages. ©1989 *Universal Radio Res.*

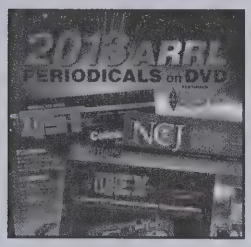
Order #2845 ..... **$4.98**



SHORTWAVE LISTENER LOGGING SHEETS

These sheets have been designed to include all the information from your listening. Headings include: Date, Time, Frequency, Call, Station ID, Location, SINPO, Mode, Remarks, QSL Sent and QSL Received. 40 sheets for 1000 loggings.

Order #2886 ..... **$4.95**



ARRL PERIODICALS

Get all the year's issues of: *QST, QEX* and the *National Contest Journal* on one CD-ROM. Years not shown are no longer available. A DVD is used from 2012 on. *A.R.R.L.*

- **ARRL Periodicals 1996** *Order #3165* **$14.98**
- **ARRL Periodicals 1997** *Order #0324* **$14.98**
- **ARRL Periodicals 2000** *Order #5964* **$18.98**
- **ARRL Periodicals 2005** *Order #1287* **$18.98**
- **ARRL Periodicals 2012** *Order #5974* **$19.98**
- **ARRL Periodicals 2013** *Order #6166* **$19.98**
- **ARRL Periodicals 2014** *Order #6405* **$19.98**
- **ARRL Periodicals 2015** *Order #6588* **$22.95**
- **ARRL Periodicals 2016** *Order #6727* **$22.95**
- **ARRL Periodicals 2017** *Order #1315* **$22.95**

I.R.C.A REPRINT SERVICE

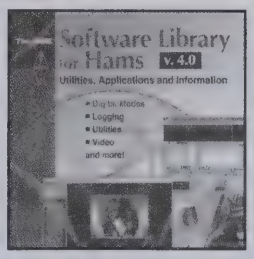
This great CD includes hundreds of articles PDF scanned from the International Radio Club of America's *DX Monitor* bulletins over the years. A gold mine of information for the medium wave DXer or radio historian. ©2009 *I.R.C.A.*

Order #1457 ..... **$11.95**

YouTube

Check out our informative product videos on our **YouTube** channel:

UniversalRadioInc



ARRL SOFTWARE LIBRARY FOR HAMS v4

Get all kinds of ham radio software: CW Decoder Morse code translator, WinDRM digital voice software and HF digital software for PSK31, MFSK16, MT63, Slow-Scan TV, Digital SSTV, RTTY, APRS®, JT65, packet radio and satellite tracking. *ARRL* ©2012. List $22.95.

Order #0000 .... *Disc.*

ARRL SOFTWARE LIBRARY FOR HAMS v3

Close-out. *ARRL* ©2009.

Order #2113 ..... **$9.98**

WORLD OF KEYS

D. Ingram shows over 100 of the world's most prized, exotic and glamorous keys - new and old: spark keys, camelbacks, dual polarity keys, pump keys, fun keys, Vibroplex bugs, motor driven, rotary and vertical bugs, 3-lever bugs & keys, miniatures and an array of modern keys.

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MR. SCANNER's FCC FREQUENCY DATABASE

This searchable CD includes: PD, FD, RR, Marine, Wx, Space, Air, Utilities, etc. For: Windows XP and up. ©2017.

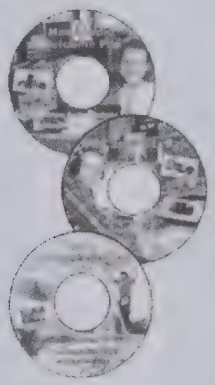
Order #6823 ..... **$23.95**

VLF RADIO - THE SOUNDS OF LONGWAVE

By K. Carey. This ***audio CD*** gives you an audio tour of the longwave band from natural radio to aviation beacons, to weather stations, LOWFERS, military transmissions, time stations, broadcasters and more! Even includes some historical signals such as submarine comms. ©2006.

Order #0823 ..... **$16.95**

CQ DVDS



CQ Magazine has created three exciting video **DVD** compilations. Each area contains two or three video programs presented in a simple, but informative fashion. A great way to learn ham radio!

WELCOME PACK

Ham Radio Horizons
Getting Started in Ham Radio
Getting Started in VHF

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HF SPECIALTY

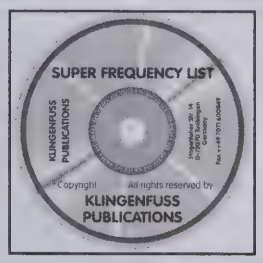
Getting Started in DXing
Getting Started in Contesting

Order #4928 ..... **$14.98**

VHF SPECIALTY

Getting Started in VHF
Getting Started in Satellites
Getting Started in Packet

Order #4929 ..... **$14.98**



SUPER FREQUENCY LIST CD 2018

This popular guide by Klingenfuss is now on CD. 8,800 shortwave utility frequencies, updated as of 12/16 are featured, plus 900 abbreviations. You also get 4,600 entries with SW broadcast schedules. Browse and search for frequencies, stations, callsigns, languages & countries. Produced December 2017. Win/XP/Vista/7/8/10.

Order #0744 ..... **$39.95**

MTXpress COMPLETE ANTHOLOGY 1999-2013

This wonderful compilation includes every issue of ***Monitoring Times*** from 1999-2013 on one computer DVD. In PDF format and searchable on any word. ©2013 *Grove Ent.*

Order #6214 ..... **$49.95**

CONTESTING

A collection of software and information to help you be a more competitive ham contester. By WA8JBT.

Order #4165 ..... **$8.98**

50 YEARS OF AMATEUR RADIO INNOVATION - CD SUPPLEMENT

This CD includes 825 *more* fabulous radio and accessories from 1930 to 1980. It is a wonderful supplement to the book *50 Years of Amateur Radio Innovation* (which is described below).

Order #5623 ..... **$11.98**

50 YEARS OF AMATEUR RADIO INNOVATION 1930 -1980

By Joe Veras, K9OCO. This guided tour book of more than 400 legendary radios from 1930 to 1980, depicts the *Golden Age* of American radio technology. Each truly beautiful photograph by Joe Veras, K9OCO, includes a brief description, the year the radio was introduced and its selling price at the time. Many of the radios and accessories are quite rare, others are sure to bring fond memories. ©2008 *A.R.R.L.* 128 p.

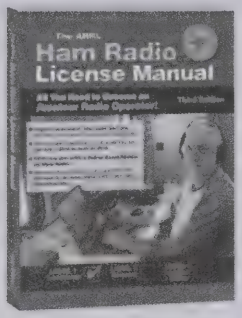
Order #3269 ..... **$39.95**

UHF/MICROWAVE PROJECTS

This CD-ROM includes Volume 1 and 2 of the *ARRL Microwave Projects Manuals.* ©2012

Order #0000 .... *Disc.*

Amateur Study Materials



HAM RADIO LICENSE MANUAL
This book is more than a study guide, it is everything you need to know to get on the air with a **Technician** license! It is a complete introduction to ham radio. Valid from 07/01/14 to 06/30/18. *ARRL.* Third Ed. 208 p. List $29.95.
Order #6251 ..... **$23.98**

Special *lay-flat* spiral bound edition.
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As above, but valid for exams from 07/01/18 to 06/30/22. Fourth Ed.
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These study guides in the question and answer format give brief explanations to understand the answer. For the **Tech** to June 30, 2018.
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Order #3062 ..... **$15.95**

For the **Extra** to June 30, 2020.
Order #5481 ..... **$16.95**

ARRL MORSE CD COURSE
This audio CD course takes you to 5 WPM. Characters are recorded at 18 WPM, but the spacing is at 5 WPM.
Order #0684 ..... **$14.95**

MORSE CODE FOR RADIO AMATEURS
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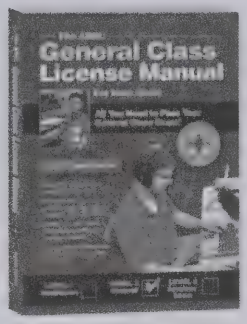

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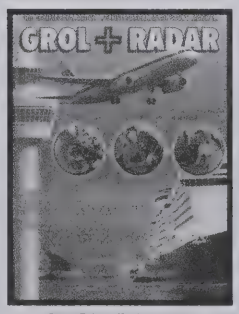

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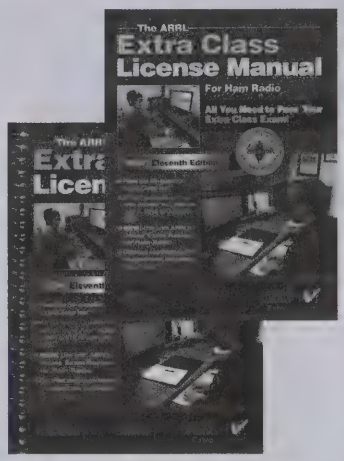

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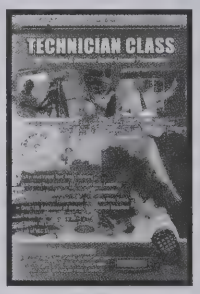

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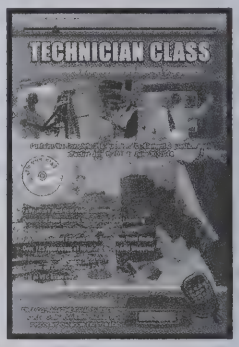

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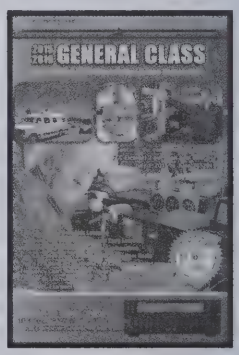

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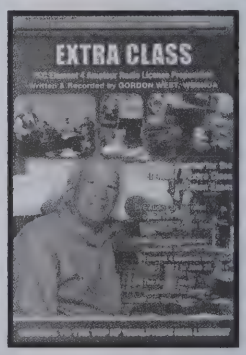

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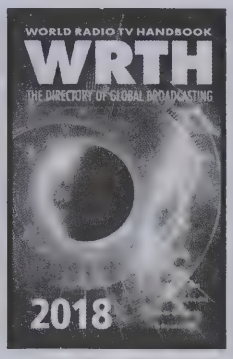

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This long established publication is filled with schedules, frequencies and addresses of shortwave broadcast stations. Organized primarily by country. Also includes a by-frequency listing of shortwave broadcast stations, plus receiver reviews. *WRTH Pub.* 72ND Edition. ©2017 672 p. List $49.95.

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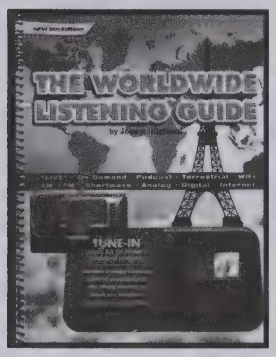

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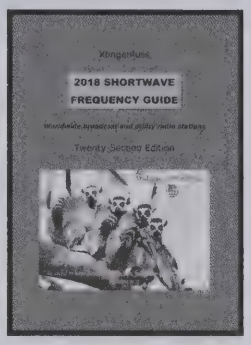

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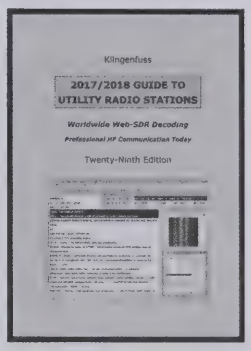

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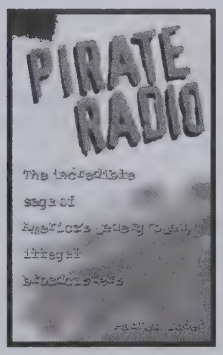

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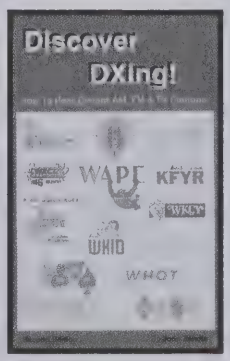

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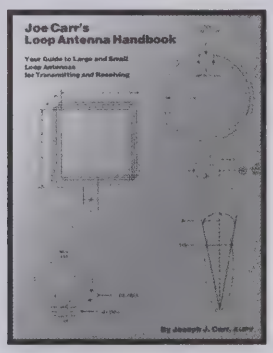

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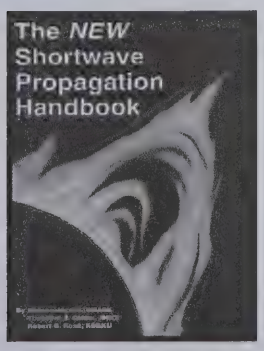

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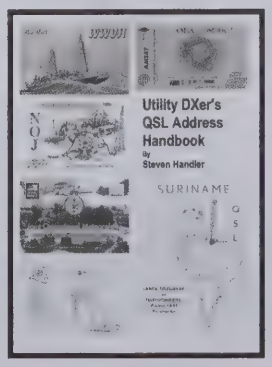

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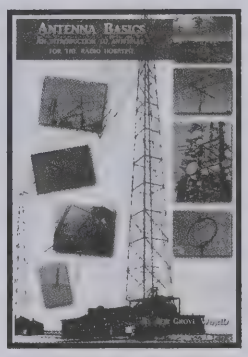

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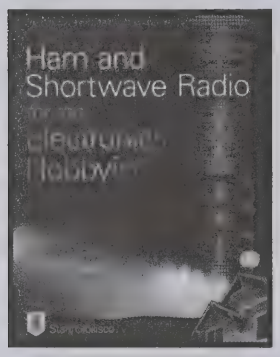

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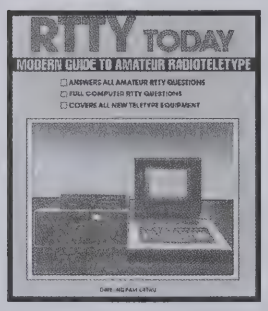

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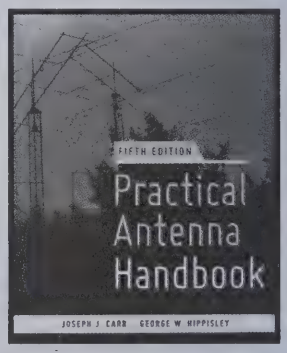

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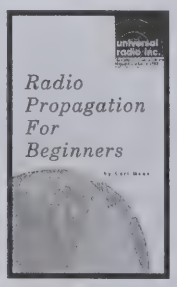

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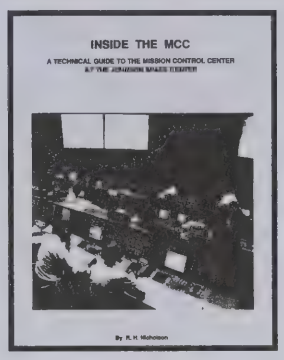

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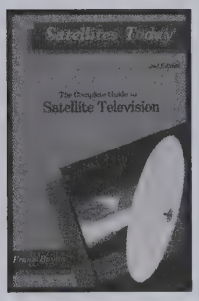

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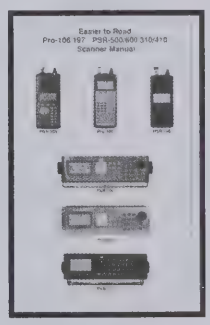

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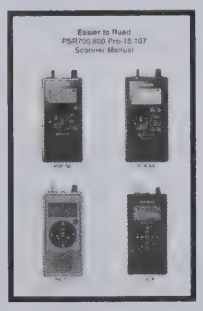

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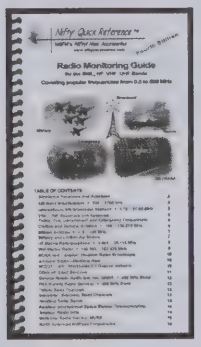

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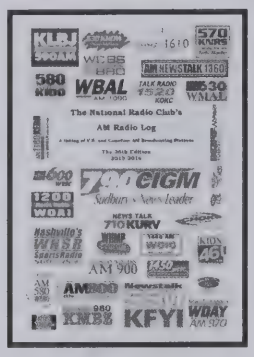

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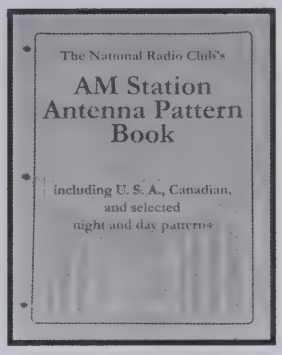

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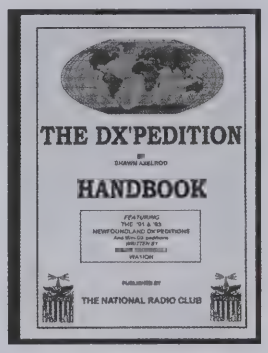

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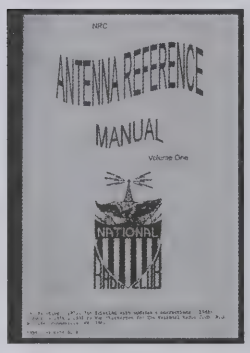

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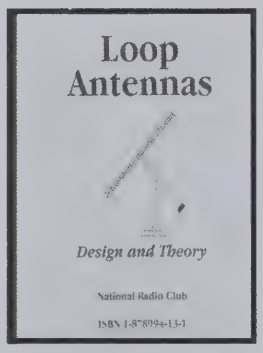

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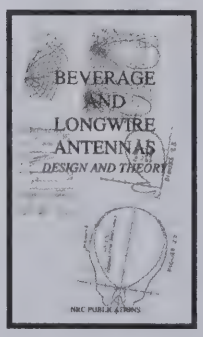

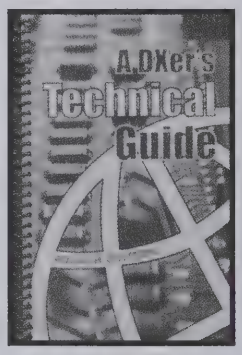

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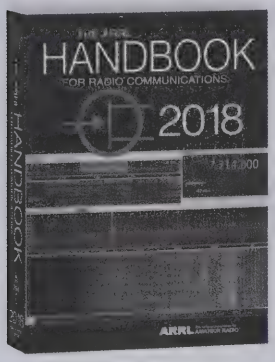

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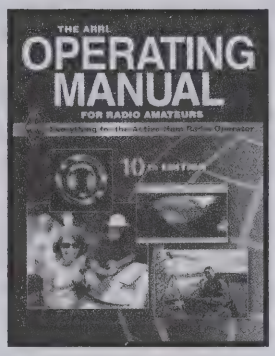

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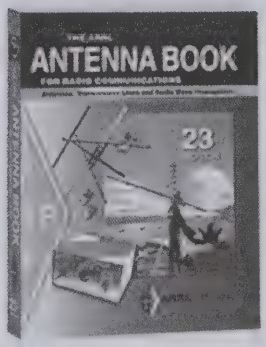

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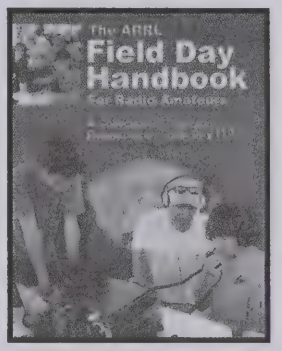

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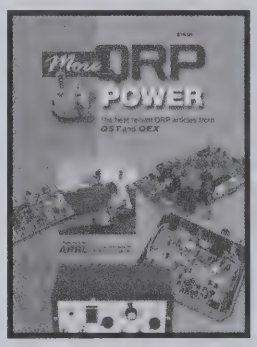

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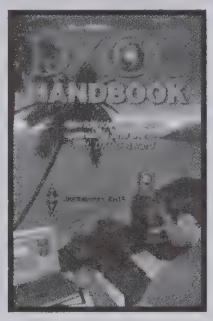

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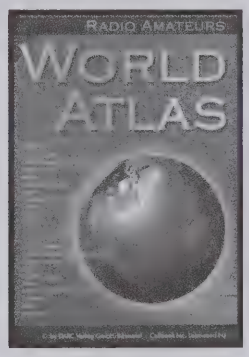

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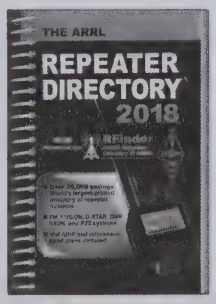

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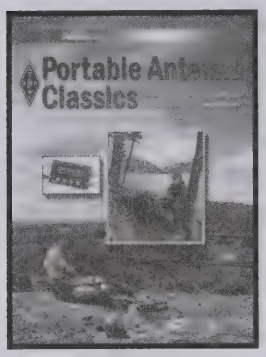

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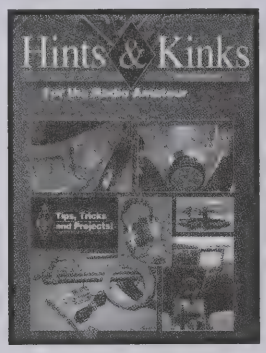

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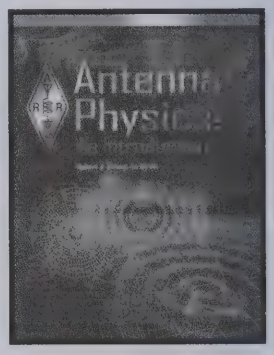

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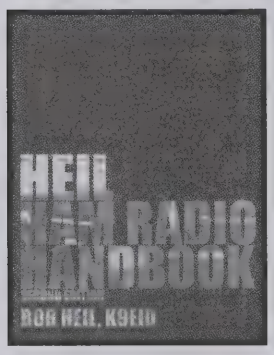

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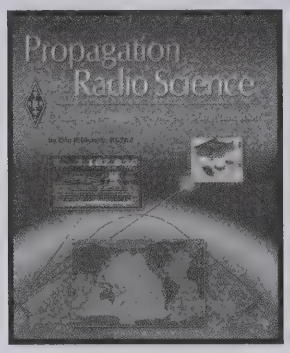

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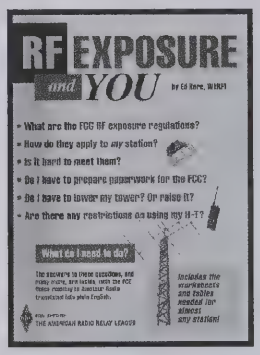

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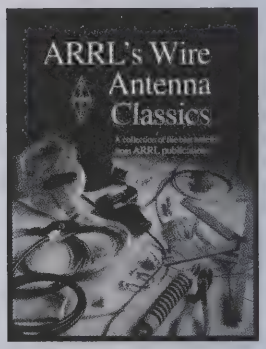

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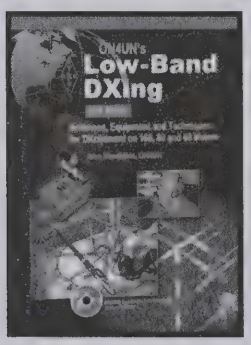

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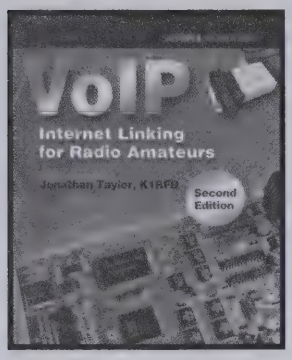

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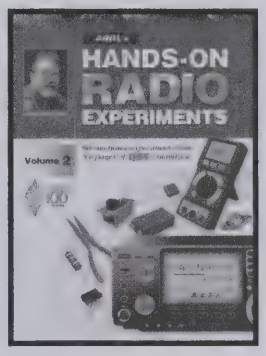

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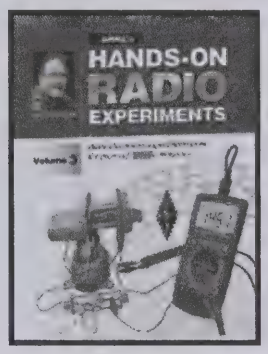

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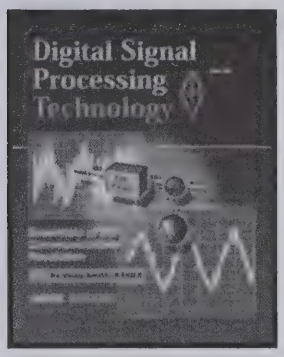

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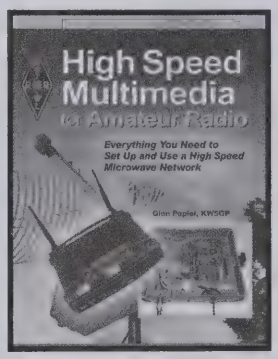

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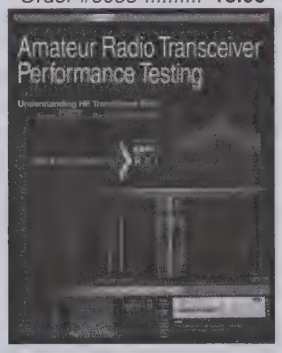

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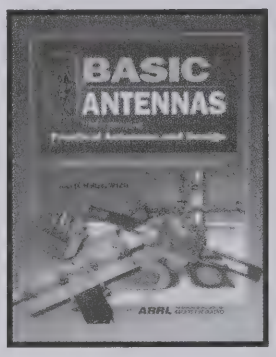

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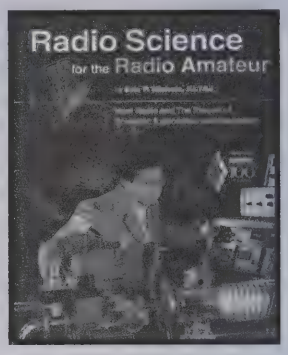

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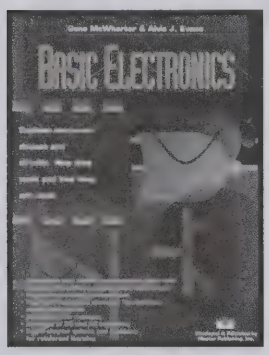

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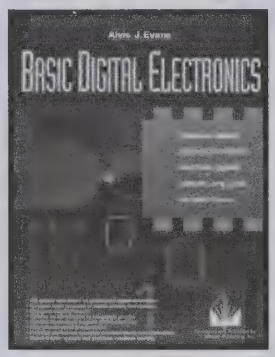

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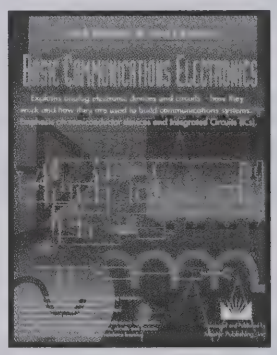

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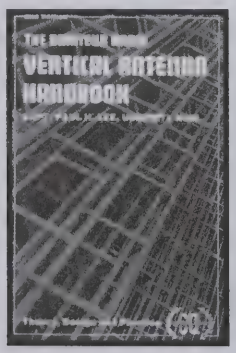

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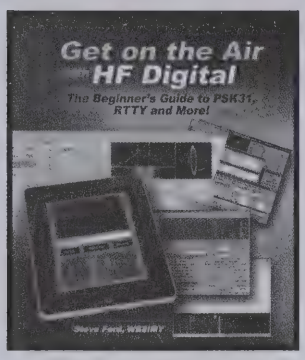

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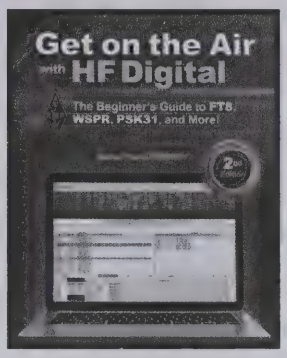

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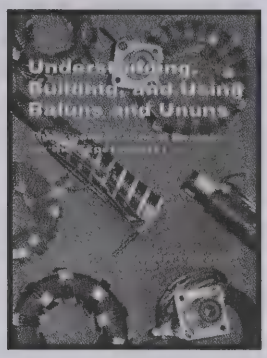

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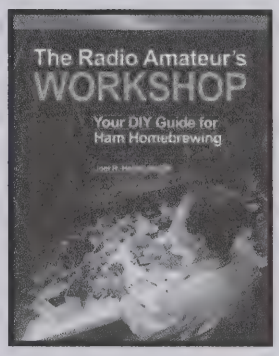

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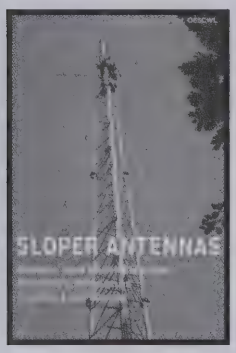

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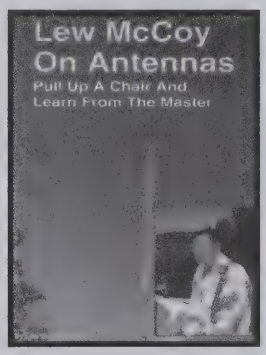

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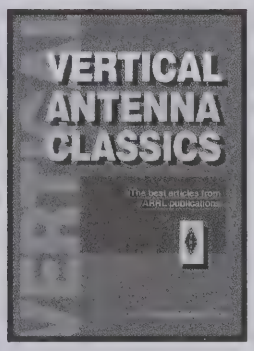

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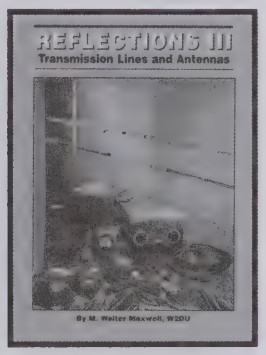

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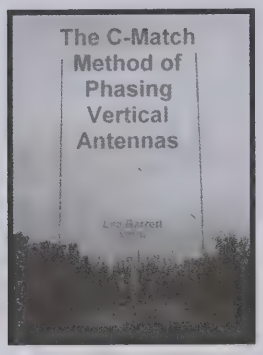

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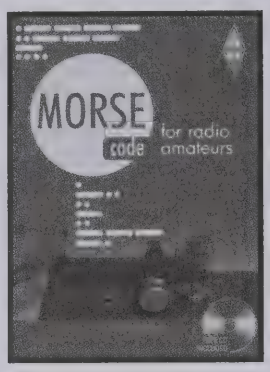

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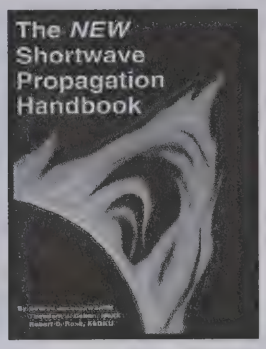

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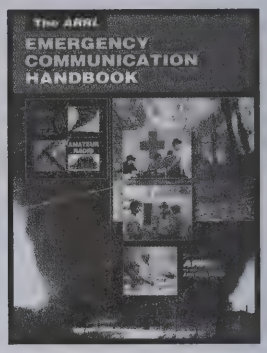

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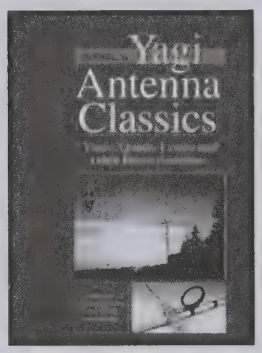

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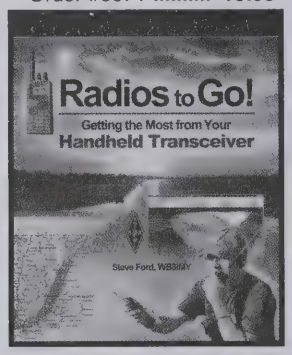

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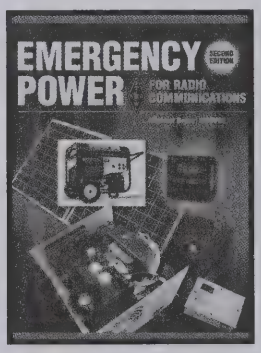

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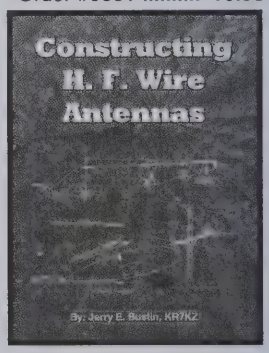

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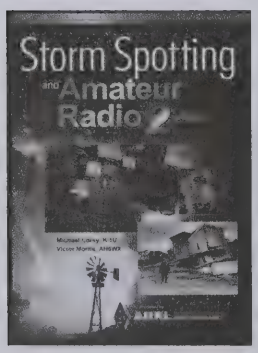

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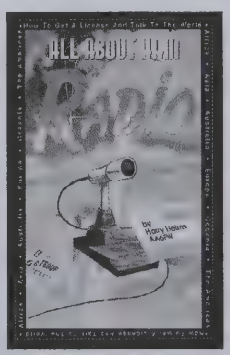

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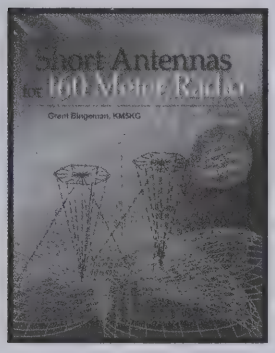

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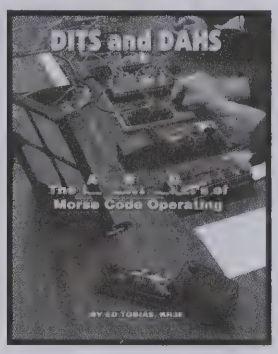

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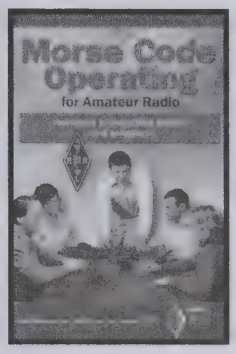

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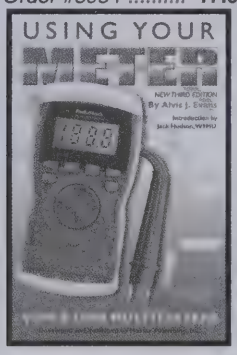

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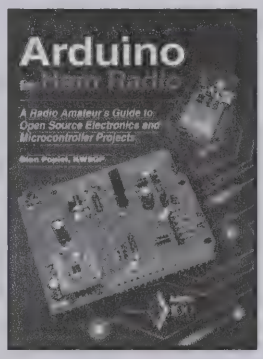

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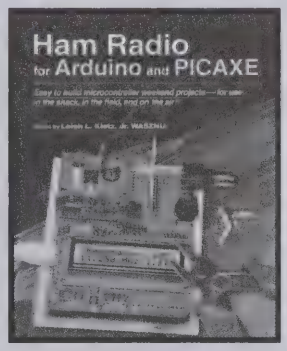

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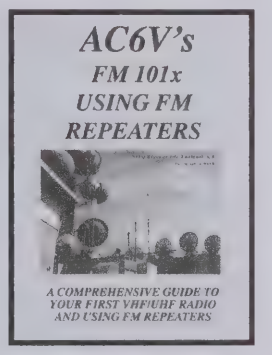

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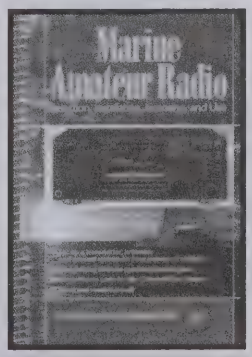

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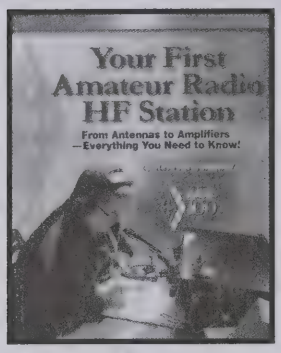

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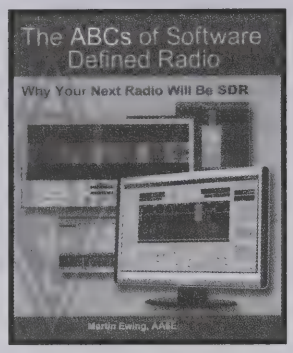

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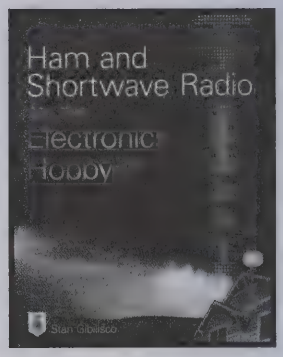

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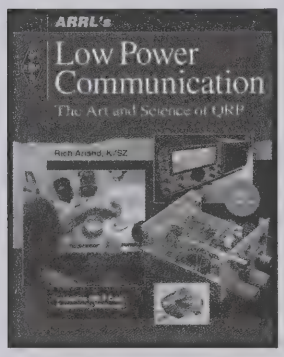

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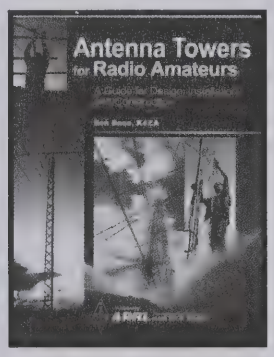

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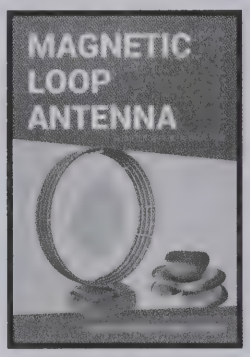

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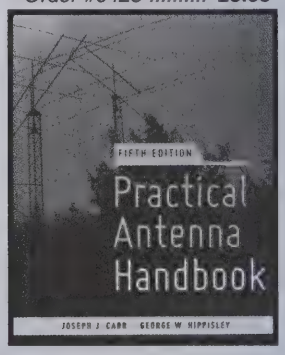

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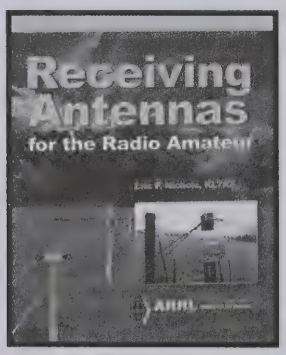

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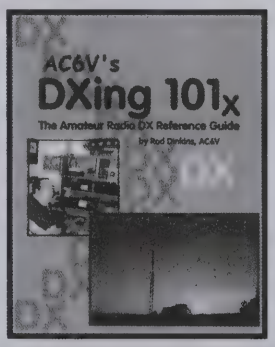

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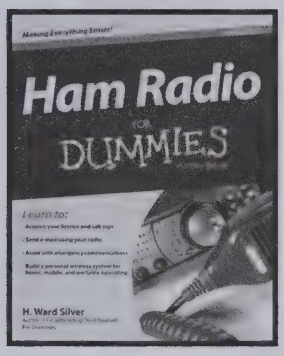

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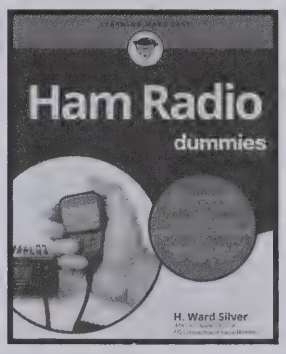

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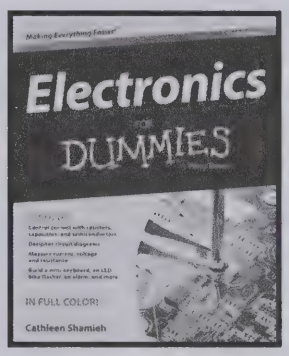

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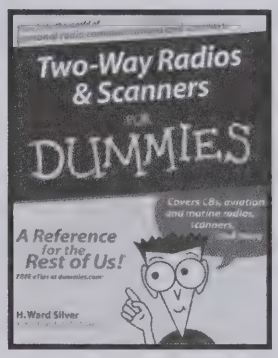

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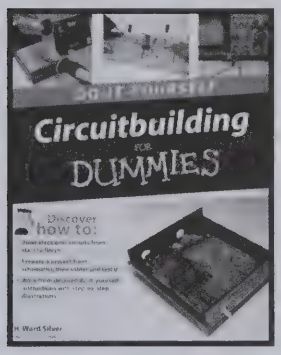

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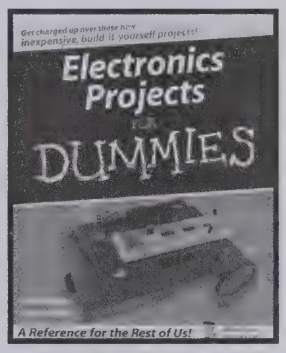

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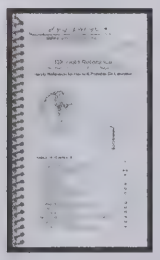

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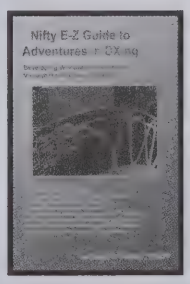

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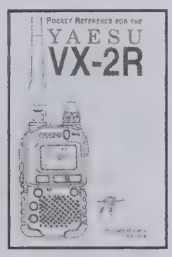

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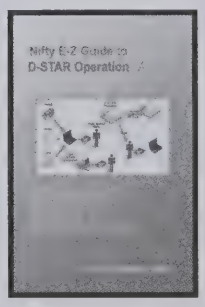

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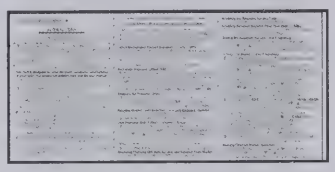

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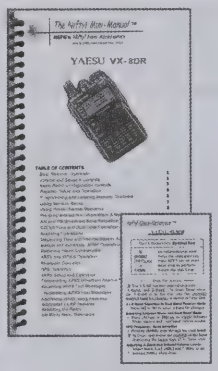

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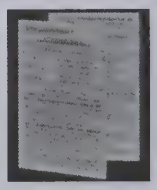

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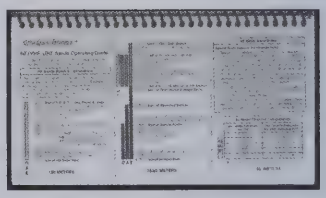

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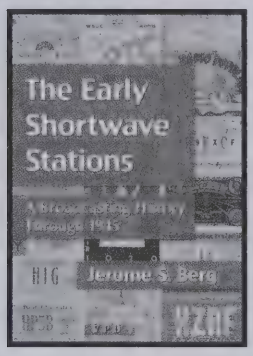

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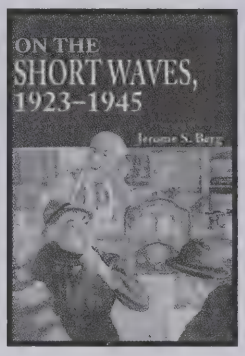

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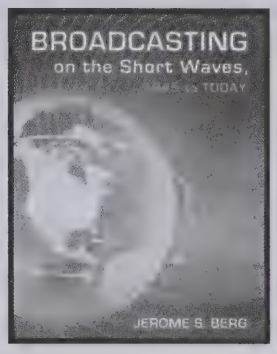

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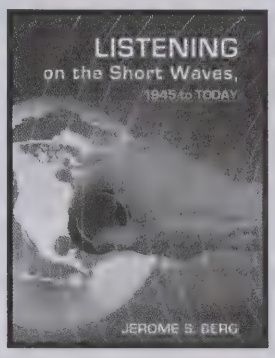

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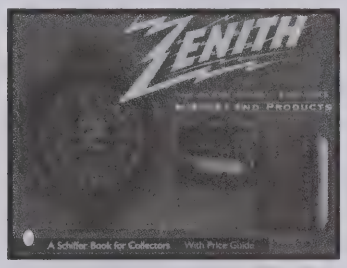

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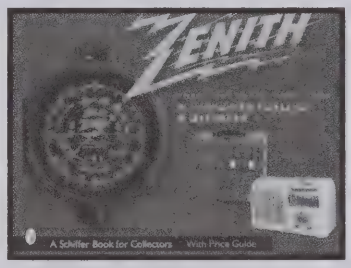

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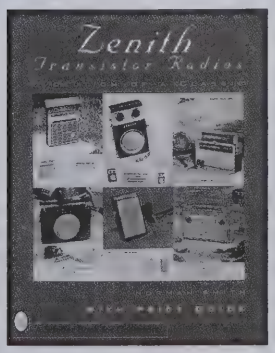

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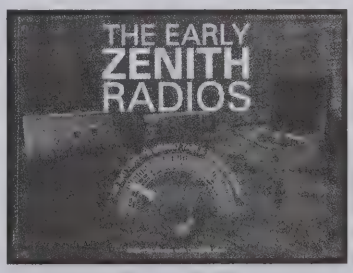

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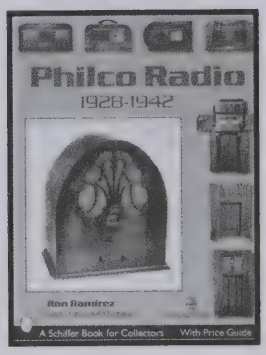

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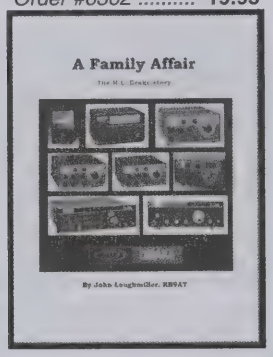

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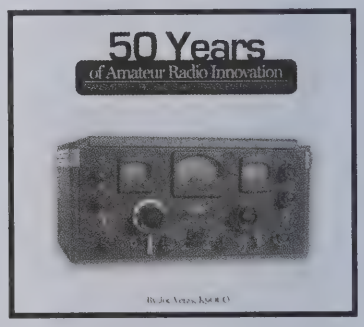

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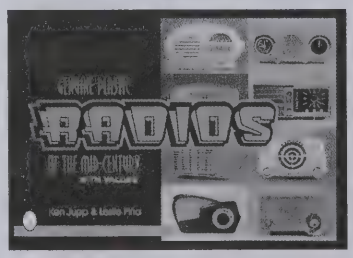

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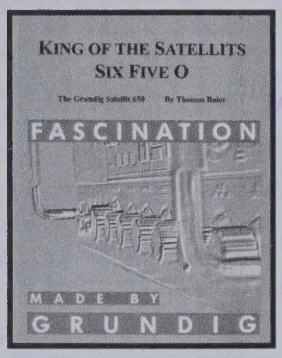

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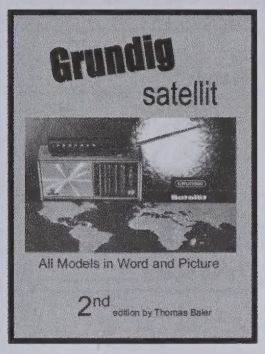

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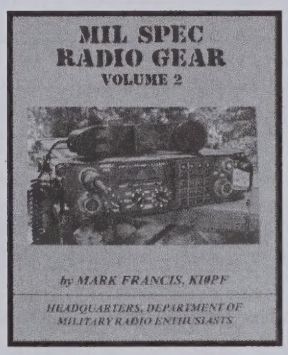

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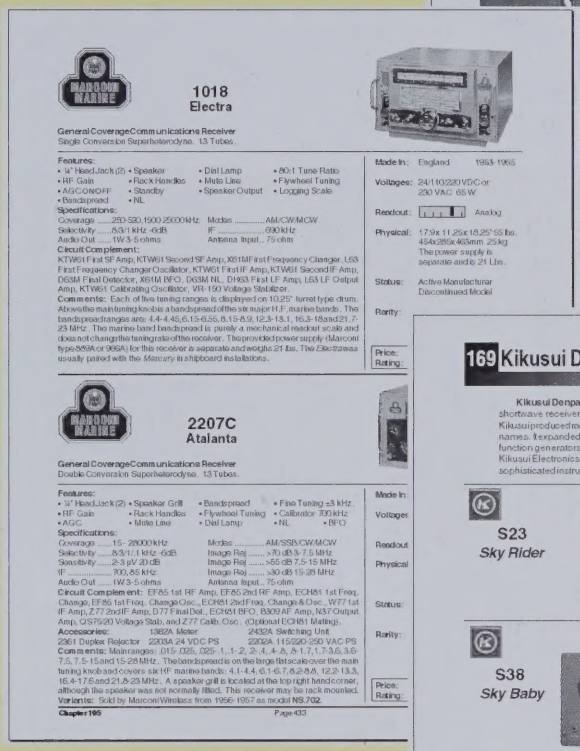

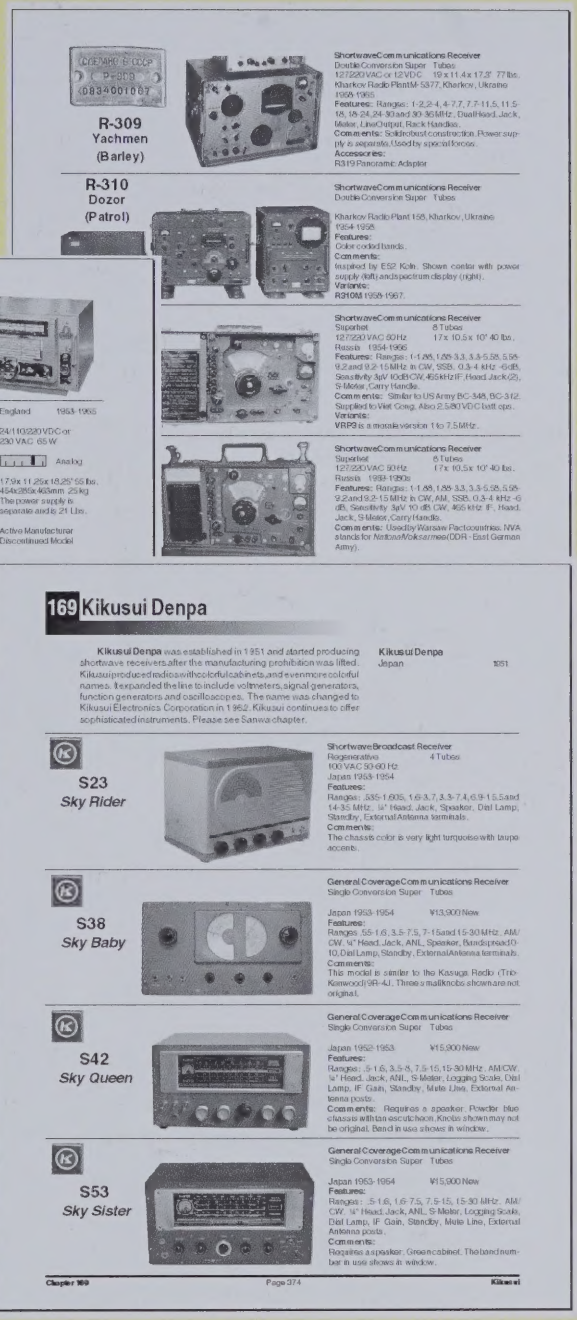

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